

Remedial Investigation Report Old Ley Creek Channel Site Town of Salina, New York

Prepared for

New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233



Prepared by

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> July 2010 Revision: DRAFT EA Project No. 14368.42

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4-4'DDD
 4-4'Dichlorodiphenyldichloroethane
 4-4'DDE
 4-4'Dichlorodiphenyldichloroethylene
 4-4'Dichlorodiphenyltrichloroethane

amsl Above Mean Sea Level
ASP Analytical Services Protocol
AWQS Ambient Water Quality Standards

bgs Below Ground Surface

CHA Clough-Harbor Associates
COC Contaminants of Concern

COEC Contaminants of Ecological Concern

EA Engineering, P.C. and its affiliate EA Science and Technology

ELAP Environmental Laboratory Approval Program

FACU Faculatative Upland FACW Faculatative Wet FS Feasibility Study

GPS Global Positioning System

MTBE Methyl tert butyl ether

NYCRR New York Code of Rules and Regulations

NYSDEC New York State Department of Environmental Conservation

OBL Obligate

PCB Polychlorinated Biphenyl PID Photoionization Detector

ppm Parts Per Million

PSS1E Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally flooded/saturated

QA Quality Assurance QC Quality Control

RI Remedial Investigation

SCG Standards, Criteria, and Guidance

SCO Soil Cleanup Objectives

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Solvents and Petroleum Services, Inc. SPS Semivolatile Organic Compound **SVOC**

TAL Target Analyte List Total Organic Carbon TOC

United States Environmental Protection Agency **USEPA**

Volatile Organic Compound **VOC**

1. INTRODUCTION AND PROJECT OVERVIEW

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology (EA), to perform a Remedial Investigation (RI)/Feasibility Study (FS) at the Old Ley Creek Channel site in the town of Salina, Onondaga County, New York (Figure 1-1). The original RI/FS Work Assignment requested the following four tasks:

- *Task 1*—Background review and preparation of work plans.
- *Task 2*—Phase I field investigation and RI Report soil, surface water, and sediment investigations.
- Task 3—Phase II field investigation and supplemental RI.
- *Task 4*—Preparation of FS.

Based on the results of Task 2, the NYSDEC determined that additional surface water, soil, and groundwater sampling be completed prior to completion of the RI report. This RI Report has been prepared as part of Tasks 2 and 3 to discuss field activities, present tables and figures summarizing sample locations and analytical results, and evaluate the potential for impact to public health, as well as the environmental concerns for the Old Ley Creek Channel site. The information obtained during this RI will be used to evaluate and select remedial alternatives to be included in the FS for the Old Ley Creek Channel site.

1.1 SITE HISTORY

The Old Ley Creek Channel site is located west of the intersection of Factory Avenue and Wolf Street (State Route 11) in the town of Salina, Onondaga County, New York. The approximately 3.5-acre site is within an overgrown and wooded area adjacent to the banks of the former Ley Creek Channel between Route 11 and Ley Creek (Figure 1-1). The Old Ley Creek Channel site is approximately 1,350 ft in length and flows from northeast to southwest draining to Ley Creek. The old channel is incised within the unconsolidated overburden suggesting that higher stream flows occur at this location. The base of the Old Ley Creek Channel site appears to be a layer of dense clay or till. In addition, a low swale east of the old channel also collects runoff which appears to slowly seep to the old channel.

Ley Creek, a major tributary to Onondaga Lake, flows from an area east of Syracuse and follows a circuitous path from its headwaters east of the Syracuse International Airport and then west-southwest parallel with Factory Avenue eventually discharging to Onondaga Lake. The creek drains both rural and industrial areas.

The Town of Salina Landfill is located west and northwest of the Old LEy Creek Channel site. The landfill began operations in the 1950s and continued receiving waste into the 1980s (NYSDEC 2009a). The unlined landfill was established in a wetland complex that extended from Onondaga Lake northeast toward the village of Mattydale. During its operation, the landfill received domestic, commercial, and industrial wastes. Hazardous waste, including 640 tons of paint sludge, and 22 tons of waste paint thinner and reducer from the General Motors Fisher Guide Division was disposed of at the landfill. The landfill ceased operations in 1975; however, additional waste was delivered after that time. Closure via a soil cover cap was not completed until 1982. The elevation of the landfill parcel adjacent to the Old Ley Creek Channel site is approximately 14 ft higher in elevation.

During the early-1970s, in an effort to limit flooding in the area, the U.S. Army Corps of Engineers re-routed Ley Creek through the landfill area. The re-routing of the creek separated a fragment of the landfill between the new course of Ley Creek and the Old Ley Creek Channel. This portion of the landfill is referred to as the Town of Salina Landfill parcel in this report. Since the re-routing of Ley Creek, the source of water entering Old Ley Creek Channel has been through a culvert which drains storm water from State Route 11 and through groundwater discharge.

The landfill contains multiple contaminants including polychlorinated biphenyls (PCBs); chlorinated solvents; chlorinated benzenes; benzene, toluene, and xylenes; polyaromatic hydrocarbons, and heavy metals (cadmium, iron, mercury, nickel, and lead). Analysis of surface water, sediment, and groundwater has indicated that contaminants are migrating from the landfill toward Onondaga Lake (NYSDEC 2009a).

Another potential source of impacts is the Solvent and Petroleum Services, Inc. treatment system which discharges to the Old Ley Creek Channel. The design parameters of the system and the discharge permit requirements are unknown. However, analytical results suggest that the treatment system may be responsible for a portion of the impacts in environmental media at the site.

1.2 PURPOSE AND SCOPE

The purpose of this RI is to evaluate existing on-site conditions, possible human and ecological exposure to chemicals of concern, as well as develop a remedial approach to address site impacts. The focus of this RI was to characterize the nature and extent of impacts at the site, while collecting the data necessary to complete a FS for the Old Ley Creek Channel site. Specifically, the objectives of the RI are to:

- Identify possible source area(s) onsite.
- Define source areas and characterize the overall volume and distribution of impacts in environmental media.
- Assess pathways and possible human and ecological exposure to impacted media.

1.3 REPORT ORGANIZATION

This report presents the overall approach and details specific activities that were performed during the RI. Chapter 1 provides a description of the site background including site history, physical characteristics of the site, and a summary of previous investigations. Chapter 2 provides a summary of the procedures and techniques used to complete the field investigation program. Chapter 3 presents a discussion of the findings of the RI. Chapter 4 presents a discussion of the fate and transport of contaminants of concern (COC). Chapter 5 presents the qualitative human and ecological exposure assessment. Chapter 6 provides the fish and wildlife resources impact analysis. Chapter 7 presents recommendations and conclusions based on the available data.

1.4 BACKGROUND

The following section provides a brief discussion of the site background for the Old Ley Creek Channel site.

1.4.1 Site Location

The Old Ley Creek Channel site is located west of the intersection of Factory Avenue and Wolf Street (State Route 11) in the town of Salina, Onondaga County, New York. The approximately 3.5-acre site is within an overgrown and wooded area adjacent to the banks of the former Ley Creek Channel between Route 11 and Ley Creek (Figure 1-1). The area surrounding the site is primarily commercial and industrial. A National Grid right-of-way is located north and west of the site boundary. The right of way is located within the boundary of the Town of Salina Landfill parcel. The Solvents and Petroleum Services, Inc. (SPS) facility is located adjacent to the property along the former Old Ley Creek Channel and Route 11. SPS is a solvent and petroleum product distributor for numerous industries.

1.4.2 Property Information

The subject site is currently unoccupied. The site is the former channel for Ley Creek. Ley Creek was rerouted in the early-1970s, turning the channel into a tributary for the new channel. The site has been used as a disposal area for miscellaneous materials (i.e., tires, scrap metal, furniture). The sources of this material are unknown.

The property is currently owned by Plaza East. The parcel is approximately 3.5-acres and is zoned as commercial (Figure 1-2).

1.4.3 Physiography

The subject site is located on the U.S. Geological Survey West Syracuse, New York 7.5-minute topographic quadrangle map, dated 1978. The topography at the site is irregular having been modified through re-routing of the channel and dumping of waste along the banks of the old channel.

Elevation at the site is approximately 370 ft above mean sea level. The surface water feature as noted on the topographic map is Ley Creek, which is located north and west of the subject site. Ley Creek flows to the west-southwest into Onondaga Lake.

A review of a historic topographic map (U.S. Geological Survey 1947) indicates that the site was formerly a wetland complex which extended from the northeastern shore of Onondaga Lake to just south of the village of Mattydale. The extreme northern portion of this wetland complex was used as the Town of Salina landfill. Landfilling operations appear to have encroached to the banks of the Old Ley Creek Channel. A portion of the wetland which was not covered by waste has been delineated by EA. The U.S. Fish and Wildlife Service has also mapped a wetland that encompasses the Old Ley Creek Channel Site from the edge of the Town of Salina Landfill parcel to a point just east of State Route 11.

1.4.4 Site Geology

A review of the geologic map of New York, Finger Lakes Sheet published by the University of the State of New York, the State Education Department, dated 1970, indicates that bedrock in this area is made up of units of the Vernon Formation which consists of upper Silurian shale and dolostone.

1.4.5 Site Hydrogeology

Based on well logs available from drilling conducted in support of the Town of Salina Landfill, overburden in the vicinity of the Old Ley Creek Channel site consists of waste/fill, clay, silt, and silty clay at the surface with a combination of sand and gravel; and till at depth. Groundwater in the overburden is from 8 to 12 ft below ground surface (bgs). Evaluations of groundwater flow patterns completed as part of the *Well Installation and Sampling Report Town of Salina Landfill* (Clough-Harbor Associates [CHA], 2009) indicates that groundwater flow at the Old Ley Creek Channel site is moving radially toward Ley Creek to the north and west of the Old Ley Creek Channel site.

1.5 PREVIOUS INVESTIGATIONS

No previous investigations have been completed to specifically address impacts at the Old Ley Creek Channel site. However, numerous monitoring wells and borings have been installed as on the Town of Salina Landfill parcel as part of a RI completed for the Town of Salina Landfill. These logs have been used to assist in interpreting the hydrogeologic conditions at the Old Ley Creek Channel site.

1.5.1 Well Installation and Sampling at Town of Salina Landfill, CHA, 2009

A well installation and sampling report was conducted by CHA in 2009 at the Town of Salina Landfill parcel located between the Old Ley Creek Channel and Ley Creek (Appendix A). The investigation included the installation of monitoring wells to assess hydrogeologic conditions

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between Ley Creek and Old Ley Creek Channel and water quality in the unconfined aquifer located within the landfill.

Soil borings were completed at the site as part of the investigation using a hollow-stem auger. Soil samples collected were screened for organic vapors using a photoionization detector (PID) in the field and were used to describe site stratigraphy. Soil samples were not analyzed for impacts.

Installed wells were monitored for water quality parameters and groundwater levels. Wells were sampled and samples were sent to CHEMTECH for analysis of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, PCBs, and metals.

Results showed that groundwater flow occurred primarily in the west/northwest direction toward Ley Creek. Groundwater in the area near Old Ley Creek appears to flow north away from Old Ley Creek. Groundwater analytical data from the CHA report suggests that the study area between Old Ley Creek and Ley Creek was not impacted by SVOCs, PCBs, or pesticides, but VOCs were found to be above groundwater standards.

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2. FIELD INVESTIGATION

Field investigation activities were conducted in accordance with the RI/FS Work Plan (EA 2009), with the exception of the deviations specifically identified in the following sections. In accordance with the site specific Health and Safety Plan, health and safety officer responsibilities were assigned to one of the team members throughout the field program to ensure that the personnel were protected from both physical and chemical health hazards. Appropriate protective clothing was worn by field personnel while performing all intrusive activities for protection against contamination and to prevent cross-contamination between sample locations and matrices. Sample locations are illustrated on Figure 2-1.

2.1 FIELD ACTIVITIES

The following field activities were completed as part of the field investigation portion of the Work Assignment:

- Surface soil investigation
- Subsurface soil investigation
- Surface water investigation
- Sediment investigation
- Groundwater investigation
- Site survey.

2.2 SURFACE SOIL INVESTIGATION

A surface soil investigation was conducted as part of this RI to evaluate impact to the shallow overburden at the site (0-2 ft bgs). Surface soil samples were collected using a hand-driven slide hammer driving a split-spoon sampling device which included dedicated acetate sleeves for collection of samples. A total of 65 soil samples were collected from 24 sampling locations at the site from 12 to 14 January 2010. An additional 21 samples were collected from seven locations on 26 April 2010. These samples were collected based on the results of the initial surface soil sampling effort. The sample locations were selected in order to provide improved resolution on the extent of impacts to surface soil. Each sampling location was flagged and its location recorded using a high-precision global positioning system (GPS) unit and each location was subsequently surveyed by a licensed surveyor.

As stated in the RI work plan, surface soil samples were collected from 0-6 in. bgs, 6-12 in. bgs, and 12-24 in. bgs at each of the sample locations. A total of 86soil samples were collected and sent for laboratory analysis. Samples were submitted for VOCs analysis by United States Environmental Protection Agency (USEPA) Method 8260B, SVOCs analysis by USEPA Method 8270C, target analyte list (TAL) metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A. The soil samples were sent to Mitkem Labs,

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Warwick, Rhode Island, which is an approved Environmental Laboratory Approval Program (ELAP)-certified laboratory for VOC, SVOC, TAL metals, PCBs, and pesticides analysis in accordance with the NYSDEC Analytical Services Protocol (ASP).

Surface soil sampling forms are provided in Appendix B.

2.3 SUBSURFACE SOIL INVESTIGATION

A subsurface soil investigation was implemented as part of this RI to evaluate impacts to the overburden unit at the site. A total of 22 soil borings (SB-01, SB-03, SB-04, SB-05, SB-05A, SB-05B, SB-05C, and SB-06 through SB-20) were advanced throughout the study site to a depth of approximately 19 ft bgs. Each of the soil borings were advanced to the top of the till unit. The till unit was encountered from 8 to 19 ft bgs. Each soil boring location was flagged and its location recorded using a high-precision GPS unit and subsequently surveyed by a license surveyor.

The soil borings were completed from 18 to 20 January 2010. During the field effort, soil borings were advanced and sampled using direct-push technologies using a track-mounted drilling rig. Soil samples were collected from each of the 20 soil borings at 2 to 4-ft intervals. Because of elevated PID readings and a strong coal-tar like odor, three additional soil samples were collected in the vicinity of SB-05 from 2 to 4 ft bgs (SB-05A, SB-05B, and SB-05C). These borings were completed surrounding soil boring SB-05 to determine the extent of the potential impacts. SB-05A was collected from a location 10 ft south of SB-05; SB-05B was collected from a location 10 ft west of SB-05; and SB-05C was collected from a location 5 ft southwest of SB-05. Because of the density of utilities in the area, soil boring SB-02 was not completed. Each sub-surface soil sample was collected/composited with bias toward the most impacted interval based on PID screening, color, and odors, etc. Each soil sample was described and logged identifying its geologic characteristics. The Unified Soil Classification System was used to characterize the soil samples. Soil boring logs are provided in Appendix C.

A total of 59 soil samples were collected from the 22 borings and sent for laboratory analysis. Samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A. The soil samples were sent to Mitkem Labs, Warwick, Rhode Island, which is an approved ELAP-certified laboratory for VOC, SVOC, TAL metals, PCBs, and pesticides analysis in accordance with the NYSDEC ASP.

2.4 SURFACE WATER INVESTIGATION

Two rounds of surface water samples were collected as part of this RI. Surface water samples were collected directly from the water body by dipping sampling containers into the water. One sampling event was conducted during a low-flow period and the second during a high-flow period to evaluate differences in the concentrations of analytes during different flow conditions. The low-flow surface water investigation phase was conducted on 14 January 2010 in

conjunction with the sediment investigation. The high-flow sampling event was conducted on 26 January 2010.

Based on the results of the initial sampling effort and at the request of NYSDEC, three additional surface water samples were collected on 24 May 2010.

A total of 17 surface water samples (not including quality assurance [QA]/quality control [QC] samples) were collected from Old Ley Creek Channel and Ley Creek, seven samples during the low-flow sampling event, seven samples during the high-flow sampling event, and three during the Phase II effort. The location of each surface water sample was recorded using a high-precision GPS unit and subsequently surveyed by a licensed surveyor. Samples were collected directly from the surface water body. Prior to sampling, water quality parameters were collected including temperature, Eh, pH, conductivity, oxidation reduction potential, and dissolved oxygen. Surface water sampling forms for each event are provided in Appendix D.

The 17 surface water samples were collected and sent for laboratory analysis. Samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081. The surface water samples were sent to Mitkem Labs, Warwick, Rhode Island, which is an approved ELAP-certified laboratory for VOC, SVOC, TAL metals, PCBs, and pesticides analysis in accordance with the NYSDEC ASP.

2.5 SEDMENT INVESTIGATION

Sediment samples were collected as part of this RI to evaluate potential impacts to sediment at the site. Sediment samples were collected using a split-spoon sampling device with dedicated acetate sleeves driven by a slide hammer. One round of samples were collected on 14 January 2010 during the low-flow surface water sampling event. A total of 14 sediment samples were collected from 8 locations at Old Ley Creek Channel and Ley Creek; the RI work plan stated that 12 would be sampled. However, at four of the locations (SED-07, -08, -09, and -10) there was no sediment (dense till was encountered at these locations). The samples were to be collected from 0 to 6, 6 to 12, and 12 to 24 in. bgs, however, at a number of locations there was not enough sediment thickness to collect samples from each depth. In some instances, recovery for the first interval (0-6 in.) in sediment, was limited to thin muddy sediments predominated by vegetative matter (e.g., sticks, leaves, etc.) and the sampling method (open bottom acetate sleeve) did not allow for collection of sediment suitable for analysis. These locations are noted in the analytical data summary table. The location of each sediment sample was recorded using a high-precision GPS unit and subsequently surveyed by a licensed surveyor.

Low-flow sediment sampling was completed 14 January 2010, in conjunction with the surface water investigation. Samples were collected directly from Old Ley Creek Channel and Ley Creek.

A total of 14 sediment samples were collected from eight locations and sent for laboratory

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analysis. Samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals and mercury analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A. Sediment samples were also analyzed for total organic carbon (TOC) by USEPA Method 415.1. The sediment samples were sent to Mitkem Labs, Warwick, Rhode Island, which is an approved ELAP-certified laboratory for VOC, SVOC, TAL metals, PCBs, and pesticides analysis in accordance with the NYSDEC ASP.

2.6 MONITORING WELL INSTALLATION

The monitoring wells were installed on 26 and 27 April 2010 using 4.25-in. hollow-stem augers to depths of approximately 16 to 18 ft bgs with 10 ft of screen. Continuous split-spoon samples were collected to the bottom of each boring. Borings were terminated at the top of the till unit. The samples were described by a geologist and screened with a PID. The monitoring wells were constructed of 2-in. polyvinyl chloride screen and riser. A sand pack was installed around the screen up to 2 ft above the top of the screen. A 2-ft bentonite seal was placed above the sand pack and the remaining annular space was filled with bentonite grout to approximately 0.5 ft below the surface. Steel protective casings and concrete pads were installed to protect each of the monitoring wells. Additional subsurface soil samples were collected at each well location. One sample was collected every 4 ft (below the first 2 ft), or every 2 ft if there was visible staining, odors, or elevated PID readings. A total of nine soil samples were collected from the three monitoring well locations. The soil samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals and mercury analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A.

The newly installed monitoring wells were developed on 7 and 10 May 2010. The wells were developed using surging and pumping techniques. Well development was considered complete when temperature, conductivity, and pH stabilized; and a turbidity of less than 50 nephelometric turbidity units had been achieved. Development water and drill cuttings were drummed, sampled for waste characteristics, and disposed of as non-hazardous waste at an off-site facility by a licensed waste hauler. Waste manifests are included as Appendix E.

2.6.1 Groundwater Sampling

Three groundwater samples and requisite QA/QC samples were collected on 24 May 2010. Groundwater monitoring well sampling procedures included water level measurements, well purging, field measurements, and sample collection at each monitoring well location. A copy of the purging and sampling log forms used to record well purging, water quality measurements, and sampling flow rates is provided in Appendix A. The objective of the groundwater sampling protocol is to obtain samples that are representative of the aquifer in the well vicinity so that analytical results reflect the composition of the groundwater as accurately as possible.

Groundwater samples were collected after 3 well volumes were purged or stabilization of field parameters had been established. The wells were sampled using low-flow sampling techniques.

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Groundwater samples were analyzed for target compound list VOCs, SVOCs, pesticides, PCBs (total and dissolved), and TAL metals (total and dissolved).

Field equipment used during groundwater sampling activities included a Horiba U-22 water quality meter with a flow-through cell, which includes probes for measurement of pH, Eh, turbidity, dissolved oxygen, temperature, and conductivity. Additionally, a PID was used to get a headspace reading on the well head during groundwater sampling. Each piece of equipment was checked by the EA Site Manager to be in proper working order before its use and calibrated as required by the manufacturer. Prior to each use, field analytical equipment was decontaminated. After each use, the instrument was checked and stored in an area shielded from weather conditions.

Instruments were calibrated at the beginning of each day of groundwater sampling.

2.7 WETLAND DELINEATION

A wetland delineation was conducted at the Old Ley Creek Channel site on 7 May 2010 in accordance with the NYSDEC Freshwater Wetlands Delineation Manual (NYSDEC 1995). As per the technical criteria outlined, the presence of representative wetland vegetation species was used as the primary indicator of the wetland boundary. A visual assessment of the vegetative composition was conducted and the boundary was flagged and recorded using GPS, and included in the survey of the site. Plant species were identified, recorded, and classified by their respective type (i.e., obligate [OBL], faculatative wet [FACW], faculatative upland [FACU], etc.). Species classified as OBL and FACW were target species used to determine wetland boundary. Maps of the delineation are provided in Section 3.

2.8 SITE SURVEY

Each sample location was surveyed after installation by Popli Design Group, of Penfield, New York (a New York State licensed surveyor) on 17 May 2010. The surveyor established elevations with respect to benchmarks currently installed at the site. The elevations for each new well location were established on the ground at the base of the well, at each top of casing, and the top of each riser pipe in the casing at a marked measuring point. Each elevation is referenced to the North American Vertical Datum of 1988 (NAVD 88) and reported to the nearest 0.01 ft. A copy of the survey map is provided in Appendix F.

The objective that sample and well locations be within 0.1 ft. was realized through horizontal control being established using GPS methods to record locations with respect to the New York State Plane coordinate system (central zone) and referenced to the North American Datum of 1983 (NAD83). Horizontal points were included in differential level runs between the established benchmarks. The horizontal positional accuracies were found to be within accepted tolerances for this work and points coordinated from them to be within the intended 0.1ft.

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3. FIELD INVESTIGATION RESULTS

This chapter presents the findings of the field sampling activities conducted during the RI. Groundwater, surface water, soil, and sediment samples were analyzed for VOCs, SVOCs, pesticide/PCBs, TAL metals, and TOC (sediments only). Analytical methods were performed by an ELAP-certified laboratory. In addition, the laboratories followed the QA/QC, holding time, and reporting requirements as defined in the NYSDEC ASP of June 2000. Analyses were performed by Mitkem Labs, Warwick, Rhode Island, which is an approved ELAP-certified laboratory. Laboratory analytical data are reported using Category B deliverables and the standard electronic data deliverable. Analytical data collected for the RI were validated by Environmental Data Validation, Inc. an independent third party. Analytical data were reviewed for completeness; field and laboratory QC sample results were evaluated; significant laboratory control problems were assessed; and data qualifiers were assigned. The Data Usability Summary Reports are presented in Appendix G.

Standards, criteria, and guidance (SCGs) are promulgated requirements and non-promulgated guidance which govern activities that may affect the environment and are widely used at different stages of an investigation and remediation of a site. The SCGs applicable for the data set collected during this RI are 6 New York Code of Rules and Regulations (NYCRR) Subpart 375-6 Soil Cleanup Objectives, Division of Water Technical and Operational Guidance Series 1.1.1, Technical Guidance for Screening Contaminated Sediments, Freshwater Wetlands Delineation Manual (NYSDEC 1995), Freshwater Wetlands Act Environmental Conservation Law Article 24, 6 NYCRR Parts 663 and 664, and Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Site (NYSDEC, 1994).

3.1 GEOLOGY

A review of the geologic map of New York, Finger Lakes Sheet published by the University of the State of New York, the State Education Department, dated 1970, indicates that bedrock in this area is made up of units of the Vernon Formation which consists of upper Silurian shale and dolostone. During completion of the field activities for this RI, drilling was terminated at the top of the till layer, therefore bedrock was not encountered.

Based on a review of well logs available from drilling conducted in support of the town of Salina landfill, overburden in the vicinity of the Old Ley Creek Channel site consists of clay, silt, and silty clay at the surface with a combinations of silt and clay, silt, sand and gravel, and till at depth. Groundwater in the overburden is from 8 to 19 ft bgs. Well logs completed in support of this RI confirm that the overburden at Old Ley Creek Channel consists of fill, silt and organic material, silt and sand, silt and clay, peat, and till. Cross sections illustrate the nature of the overburden at the site (Figures 3-1 and 3-2). Cross section A-A' runs from northeast to southwest and cross section B-B' runs east to west across the southern portion of the site. Native deposits are overlain by fill material along the edges of the site. It appears that the low spot along Old Ley Creek Channel was used as a dumping area for construction and demolition debris and general waste. The native material varies in thickness across the site from less than a foot

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(top soil) to several feet thick (silt and clay and silt and sand). The base of Ley Creek in this vicinity appears to flow over the dense till layer.

3.2 HYDROGEOLOGY

As part of this RI, three new monitoring wells were installed with the purpose of evaluating groundwater quality on the site and, with the inclusion of data groundwater elevation data from the existing monitoring wells from the Town of Salina Landfill, providing water elevation information for evaluating the groundwater flow direction on-site and off-site. Each of the monitoring wells are screened within the shallow groundwater zone. The screened intervals for the new monitoring wells are provided in well logs provided in Appendix H. Groundwater level measurements were taken prior to monitoring well development and groundwater sampling on 10 and 24 May 2010, respectively. Depth to groundwater measurements were recorded from the top of the inner polyvinyl chloride casing using a water level indicator. Groundwater was encountered from 4.31 to 19.7 ft bgs on 10 May 2010 and 4.27 to 20.15 ft bgs on 24 May 2010. Table 3-1 indicates the depth to groundwater and the groundwater elevation at each monitoring well location for each gauging event. The groundwater flow direction based on the groundwater level measurements indicates that groundwater flow is radial from the property between Old Lev Creek Channel and Ley Creek. The old channel and the creek act as groundwater discharge zones. Groundwater within the boundary of the Old Ley Creek Channel site flows from east to west toward the Old Ley Creek Channel. The surface water in Old Ley Creek Channel then flows approximately 1,000 ft south-southwest to Ley Creek and subsequently to Onondaga Lake. Interpreted groundwater elevation surface maps illustrating the direction of groundwater flow for each gauging event are shown in Figures 3-3 and 3-4.

Old Ley Creek Channel and Ley Creek are Class B Streams. The best usage of Class B streams are for primary and secondary contact recreation and fishing. Class B streams are suitable for fish, shellfish, and wildlife propagation and survival. Old Ley Creek Channel is bounded by fill on either side in the northern portion of the site. The fill boundary continues until the channel turns and flows to the west. After the westward turn (after the SPS treatment system outfall), the channel is bounded by fill on its northern bank and native material to the south. The fill has limited the extent of the flood plain for the old channel. In the northern reach, the flood plain is located east of the channel. As the channel turns to the west, the flood plain is on the northern side of the channel. The extreme western portion of the old channel, for approximately the last 350 ft, there is no flood plain on either bank and the channel is incised between the fill to the north and native deposits to the south.

Flow in the upper reach of Old Ley Creek Channel is very slow to marginally stagnant. Water in this area pools and is approximately 2 to 3 ft deep. The standing water area is filled with organic material and waste debris. Due to low surface water velocity, thicker sediment deposits are found in this area. The bulk of the water enters the old channel through a culvert. There are also two seeps located along the eastern boundary of the site which contribute water to the channel. Flow in lower reach of the old channel is more rapid. The base of the channel in this area flows directly on the till unit with little sediment deposition within the channel itself.

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3.3 WETLAND DELINEATION

The wetland area within the delineated boundary was approximately 1.14 acres, with dimensions of approximately 1,143.2 ft in length and 43.5-ft wide (Figure 3-5. The wetland area followed the course of the creek in a downward curve from the north of the site in a southwestern direction. Water source begins at the culvert located at the north end of the site and flows southwesterly to the confluence with Ley Creek. Wetland areas were located primarily along the edge of the creek. Historic topographic maps (1947) show the extent of wetland area to be larger than observed. Wetland area may have been lost due to dumping and the diversion of the creek.

The primary FACW species identified within the boundary consisted of highbush blueberry (*Vaccinium corymbosum*), jewelweed (*Impatiens capensis*), and reedgrass (*Phragmites australis*). Ground lilly (*Glechoma hederacea*) was the primary FACU species identified at the boundary. A photo log of plants identified during the delineation is provided in Appendix I. The only OBL species identified was lesser duckweed (*Lemna minor*). Maple (Acer) and oak (Quercus) species were observed, but were present in upland areas, as well, and so were not used as a primary boundary indicator species. As per the manual, >50 percent of identified species were FACW and 10 percent were OBL, meeting the criteria for hydrophytic vegetation. Since hydrophytic vegetation criteria were met, no hydric soil or hydrologic assessment was conducted.

The United States Fish and Wildlife Service National Wetland Inventory identifies the Old Ley Creek Channel wetland area as Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally flooded/saturated (PSS1E). Observation of the site during the delineation showed this to be an accurate description of the wetland area. No areas of stressed vegetation were observed. Primary species identified at the site are common for the Central New York area. No rare, endangered, or endangered species were observed.

3.4 SUBSURFACE SOIL SAMPLING ANALYTICAL RESULTS

A total of 59 soil samples were collected from the 22 borings and sent for laboratory analysis. Samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A. The soil samples were sent to Mitkem Labs, Warwick, Rhode Island, which is an approved ELAP-certified laboratory for VOC, SVOC, TAL metals, PCBs, and pesticides analysis in accordance with the NYSDEC ASP. Because the boundary was modified following completion of the soil borings, soil borings were advanced both inside and outside the final site boundary (Figure 2-1)

Each soil boring was advanced until the till unit was encountered. Subsurface soil samples (2-14 ft bgs) were collected from each of the 39 soil borings except for SB-04- (8-12 ft bgs) and SB-18 (4-8 ft bgs) because of lack of recovery. Because of elevated PID readings and a strong coal-tar like odor, three additional soil samples were collected from 2 to 4 ft bgs in the vicinity of SB-05 (SB-05A, SB-05B, and SB05C). These samples were analyzed for each of the parameters.

The SCGs applied to the subsurface soil sample results were 6 NYCRR Part 375 Environmental Remediation Programs using the Unrestricted Use Soil Cleanup Objectives for Protection of Groundwater. The applicable SCG was applied because the potential source areas on-site would be considered a continuing source for groundwater.

3.4.1 Volatile Organic Compound Analytical Results

Several VOCs were detected at concentrations less than Part 375 Unrestricted Use Soil Cleanup Objectives (Table 3-2). Concentrations of acetone greater than the Part 375 Unrestricted Use SCO of 0.05 mg/kg were identified in a number of samples; however, with the exception of sample SB-12 (8-12 ft [25 mg/kg]) the concentrations are treated as lab contaminants.

3.4.2 Semivolatile Organic Compound Analytical Results

Seven SVOCs were detected in nine subsurface soil samples greater than their respective 6 NYCRR Part 375 Unrestricted SCOs for protection of groundwater. The SVOCs include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Table 3-3 shows the SVOC analytical results. The SVOCs detected were collected from 0 to 14 ft bgs. The locations of the impacted samples suggest that the highest concentrations and broadest types of SVOCs are related to locations where fill was identified in the soil borings or topographic evidence suggests the presence of fill near the sampling location (e.g., steep slopes adjacent to Old Ley Creek Channel). The additional samples collected at SB-05A, SB-05B, and SB-05C did not indicate significant differences in SVOC concentrations when compared with the other samples collected at the site.

Figure 3-6 illustrates the subsurface and surface soil sampling locations where concentrations of SVOCs, metals, and pesticides are greater than their associated SCG.

3.4.3 Target Analyte List Metals and Mercury Analytical Results

Nine TAL metals and mercury were reported at concentrations greater than the Part 375 Unrestricted SCOs including arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Table 3-4 presents a summary of the TAL metal and mercury results. Sixteen of the 22 soil sampling locations had concentrations of metals greater than their SCOs.

3.4.4 Polychlorinated Biphenyls and Pesticide Analytical Results

PCBs were reported at concentrations greater than the SCG of 0.1 part per million (ppm) for total PCBs at 17 of the 20 sampling locations. PCBs were detected at various depths below ground surface. Table 3-5 summarizes the analytical results for the subsurface soil samples. PCBs at concentrations greater than the SCO were identified at concentrations that ranged from 0.13 ppm at SB-16 (12-14 ft bgs) to 39 ppm at SB-09 (8-12 ft bgs).

Seven pesticides were identified at concentrations greater than the Part 375 SCOs at 12 of the 20 sampling locations, including 4,4'-dichlorodiphenyldichloroethane (4-4'-DDD), 4-4'-dichlorodiphenyldichloroethylene (4,4'-DDE), 4-4'-dichlorodiphenyltrichloroethane (4,4'-DDT), beta-BHC, delta-BHC, endrin, and dieldrin. These pesticides were detected at various depths from 0 to 14 ft bgs. Table 3-6 summarizes the analytical results for the subsurface soil samples. As noted in Table 3-6, other pesticides were identified at the various sampling locations, but at concentrations less than the Part 375 SCOs.

3.5 SURFACE SOIL SAMPLING ANALYTICAL RESULTS

A total of 86 soil samples were collected from the 31 surface soil sampling locations and sent for laboratory analysis. Because of a lack of recovery at locations with saturated soils below grade, samples were not collected and analyzed from sampling location SS-10 (6-12 in. bgs and 12-24 in. bgs), SS-13 (6-12 in. bgs and 12-24 in. bgs), SS-15 (12-24 in. bgs), SS-16 (12-24 in. bgs), and SS-22 (12-24 in. bgs). Because the boundary was modified following completion of the surface soil samples, the samples were collected both inside and outside the final site boundary (Figure 2-1).

The SCGs applied to the surface soil sample results were 6 NYCRR Part 375 Environmental Remediation Programs using the Unrestricted Use Soil Cleanup Objectives for Protection of Groundwater. The applicable SCG was applied because the potential source areas onsite would be considered a continuing source for groundwater.

3.5.1 Volatile Organic Compound Analytical Results

Analytical results indicate that low-level concentrations of VOCs (less than their respective Part 375 Unrestricted SCOs) were detected at numerous sampling locations. Acetone was detected in a single sample at a concentration greater than the Part 375 SCO; however, it is being treated as a potential laboratory contaminant. The VOCs identified include 1,1,1-trichloroethane, 2-butanone, acetone, carbon disulfide, *cis*-1,2-dichloroethene, methylene chloride, tetrachloroethene, and trichloroethene. The analytical results are summarized on Table 3-7.

3.5.2 Semivolatile Organic Compound Analytical Results

Seven SVOCs were detected at 26 surface soil sampling locations at concentrations greater than their respective 6 NYCRR Part 375 Unrestricted SCO for protection of groundwater. The SVOCs include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and phenol. Table 3-8 shows the SVOC analytical results. The SVOCs detected were detected from 0 to 24 in. bgs.

Figure 3-6 illustrates the sampling locations which had VOC, SVOC, metals, pesticide, and PCB concentrations greater than their associated SCGs.

3.5.3 TAL Metals and Mercury Analytical Results

Nine TAL metals plus mercury were reported at concentrations greater than the Part 375 Unrestricted SCOs, including arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Table 3-9 presents a summary of the TAL metal and mercury results. Twenty-seven of the 31 soil sampling locations had concentrations of metals greater than their SCOs.

3.5.4 Polychlorinated Biphenyls and Pesticides Analytical Results

Total PCBs were reported at concentrations greater than the Part 375 Unrestricted SCO of 0.1 ppm for total PCBs at 30 of the 31 sampling locations. PCBs were detected at concentrations greater than the SCO from 0 to 24 in. bgs. Table 3-10 summarizes the analytical results for the surface soil samples. Figures 3-7 to 3-11 illustrate the locations, the depth, and concentrations of PCBs in each sample. PCBs at concentrations greater than the SCO were identified at concentrations that ranged from 0.112 ppm at SS-15 (6-12 in. bgs) to 420 ppm at SS-29 (0-6 in. bgs). The figures illustrate that the extent of PCB impacts decreases with depth, particularly the extent of impacts greater than 50 ppm, suggesting that the bulk of the impacted soil is less than 24 in. bgs.

The volume of soil with PCB impacts greater than 50 ppm from 0 to 24 in. bgs is approximately 1,256 yd³. The volume of soil with PCB impacts between 25 and 50 ppm from 0 to 24 in. bgs is approximately 2,636 yd³. The volume of soil with PCB impacts between 0 and 25 ppm from 0 to 24 in. bgs is approximately 6,022 yd³.

Eighteen pesticides were identified at concentrations greater than the Part 375 SCOs at 30 of the 31 sampling locations. These pesticides were detected at depths from 0 to 24 in. bgs. Table 3-11 summarizes the analytical results for the surface soil samples. As noted in Table 3-11, other pesticides were identified at the various sampling locations, but at concentrations less than the Part 375 SCOs.

3.6 SUMMARY OF SOIL ANALYTICAL RESULTS

The subsurface and surface soil analytical results indicate that soil at the site is impacted by SVOCs, pesticides, PCBs, and metals. Only limited low-level impacts to soils by VOCs were identified. PCB impacts are the most wide spread in both areal and vertical extents. Based on the concentrations of PCBs detected from 0 to 24 in. bgs, PCBs will be used as the basis for determining the extent of impacts at the site. The other contaminants will be evaluated based on the amount of overlap between the locations and depths where they were identified and the locations and depths where PCBs were identified.

Figure 3-6 illustrates the extent of the overlap between PCB impacted soils from 0 to 6 in. bgs, 6-12 in. bgs, and 12-24 in. bgs and the other contaminants identified at the site.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 0 to 6 in. bgs indicates that:

- Six surface soil sampling locations (SS-07, SS-11, SS-14, SS-15, SS-21, and SS-26) are located within the 0-25 ppm PCB boundary
- Six surface soil sampling locations (SS-12, SS-19, SS-20, SS-22, SS-27, and SS-31) are located within the 25-50 ppm PCB boundary
- Twelve surface soil sampling locations (SS-08, SS-10, SS-13, SS-16, SS-17, SS-18, SS-23, SS-24, SS-25, SS-28, SS-29, and SS-30) are located within the >50 ppm boundary.

This suggests that remedial efforts to remove PCB-impacted soil completed in these areas from 0 to 6 in. bgs (e.g., excavation and disposal) would also include removal of soil impacted with SVOCs, pesticides, and metals from this depth.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 6 to 12 in. bgs indicates that:

- Five surface soil sampling locations (SS-07, SS-11, SS-15, SS-21, and SS-26) are located within the 0-25 ppm PCB boundary
- Six surface soil sampling locations (SS-12, SS-19, SS-20, SS-22, SS-27, and SS-31) are located within the 25-50 ppm PCB boundary
- Ten surface soil sampling locations (SS-08, SS-16, SS-17, SS-18, SS-23, SS-24, SS-25, SS-28, SS-29, and SS-30) are located within the >50 ppm boundary.

This suggests that remedial efforts to remove PCB-impacted soil completed in these areas from 6 to 12 in. bgs (e.g., excavation and disposal) would also include removal of soil impacted with SVOCs, pesticides, and metals from this depth.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 12 to 24 in. bgs indicates that:

- Four surface soil sampling locations (SS-07, SS-14, SS-15, and SS-26) are located within the 0-25 ppm PCB boundary
- Five surface soil sampling locations (SS-12, SS-20, SS-22, SS-27, and SS-31) are located within the 25-50 ppm PCB boundary
- Nine surface soil sampling locations (SS-08, SS-17, SS-18, SS-23, SS-24, SS-25, SS-28, SS-29, and SS-30) are located within the >50 ppm boundary.

This suggests that remedial efforts to remove PCB-impacted soil completed in these areas from 12 to 24 in. bgs (e.g., excavation and disposal) would also include removal of soil impacted with SVOCs, pesticides, and metals from this depth.

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3.7 SEDIMENT SAMPLING ANALYTICAL RESULTS

A total of 14 sediment samples were collected from eight sediment sampling locations and sent for laboratory analysis. Because of the nature of the bottom of Ley Creek (portions of the creek flow over dense till with no sediment present, only 8 of the original 12 sediment samples were collected. The work plan stated that sediment samples would be collected from 0 to 6, 6-12 and 12-24 in. bgs; however, at a number of locations there was not enough sediment thickness to collect samples from each depth. In some instances, recovery for the first interval (0-6 in.) in sediment, was limited to thin muddy sediments predominated by vegetative matter (e.g., sticks, leaves, etc.) and the sampling method (open bottom acetate sleeve) did not allow for collection of sediment suitable for analysis.

The samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A.

Sediment sampling results were compared with standards developed from Technical Guidance for Screening Contaminated Sediments (NYSDEC 1999). Sediment criteria for non-polar organic compounds were developed using equilibrium partitioning methodology. Non-polar organic compounds tend to be hydrophobic (have low solubility in water). Low solubility compounds, such as pesticides and PCBs, persist in the environment and may bioaccumulate resulting in chronic toxicity effects to organisms.

Equilibrium partitioning uses various factors to determine the potential concentration of these persistent contaminants in interstitial pore water. The factors evaluated include the concentration of the contaminant in the sediment, the concentration of total organic carbon (TOC) in the sediment, and the affinity of the contaminant for organic carbon in the sediment. The organic carbon content of a sediment accounts for the largest variation in the uptake or sorption of a contaminant by sediment. The organic carbon/water partitioning coefficient (Koc) is a measure of the concentration of a contaminant that adsorbs to the organic carbon content of the sediment divided by the concentration dissolved in water. When normalized for organic carbon, concentrations of a contaminant in different sediment samples are comparable (NYSDEC 1999). As such, the guidance values are calculated as a function of the TOC content of the sediment being evaluated. Because the amount of available organic carbon varies spatially, site-specific standards are developed using concentrations of organic carbon analyzed at each site. As part of this investigation, sediment samples were collected at each sampling location and analyzed for TOC. The TOC concentration was then utilized to calculate an average organic carbon concentration, the standard deviation within the data set, the 95 percent confidence limit concentration, and a lower confidence limit concentration value. EA selected the lower confidence limit concentration value as the percent TOC (5 percent) for the derivation of the sediment criteria via equilibrium partitioning methodology. The TOC analytical data is provided in Table 3-12 and sediment criteria guidance values are provided in Table 3-13. This RI has used three criteria for evaluation purposes of the detected analytes, Human Health Bioaccumulation, Benthic Aquatic Life Chronic Toxicity, and Wildlife Bioaccumulation, whichever was the more stringent.

3.7.1 Volatile Organic Compound Analytical Results

Analytical results normalized to TOC indicate that low-level concentrations of VOCs (less than their respective Levels of Protection) were detected at six of the eight sediment sampling locations (SED-01, -02, -03, -04, -05, and -12) (Table 3-14). Each of these locations is within the Old Ley Creek Channel. Vinyl chloride was detected at a concentration greater than the Human Health Bioaccumulation standard of .015 mg/kg at SED-03 (0-6, 6-12, and 12-24 in.) at 4.7, 4.6 and 3.8 mg/kg, respectively. SED-03 is located within the Old Ley Creek Channel approximately 50 ft downstream from the outfall of the SPS treatment system.

SED-06 was collected from a swale which drains into the Old Ley Creek Channel approximately 200 ft west and downstream of the SPS treatment system outfall. A potential source of impacts is the SPS treatment system which discharges to the Old Ley Creek Channel. The design parameters of the system and the discharge permit requirements are unknown. However, analytical results suggest that the treatment system may be responsible for a portion of the impacts to sediment and other environmental media at the site. SED-11 was collected approximately 50 ft upstream from the convergence of the old channel and Ley Creek. No VOCs were identified at either of these locations.

3.7.2 Semivolatile Organic Compound Analytical Results

Analytical results indicate that low-level concentrations (less than their respective Levels of Protection) of 22 SVOCs were detected at each of the eight sediment sampling locations (Table 3-15). Five of the SVOCs detected were at concentrations greater than either the Human Health Bioaccumulation or Benthic Aquatic Life Chronic Toxicity standards. These SVOCs include benzo(a)anthracene, benzo(a)pyrene, fluorene, phenol, and phenanthrene. Combinations of these SVOCs were found at each of the sediment sampling locations. The lowest concentrations were detected at SED-01 and SED-02. These samples were collected from the upper portions of the Old Ley Creek Channel.

3.7.3 Metals and Mercury Analytical Results

Analytical results indicate that concentrations of metals greater than their respective lowest or severe effect levels were detected at each of the eight sediment sampling locations (Table 3-16). Lowest effect levels were exceeded at each sampling location for a combination of the following metals, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, silver, and zinc. Severe effect levels were exceeded at the following sampling locations SED-01, -02, -03, and -04. The severe effect levels were exceeded for chromium, copper, lead, nickel, silver, and zinc. The sediment samples were collected from locations from up to downstream in the Old Ley Creek Channel.

3.7.4 Polychlorinated Biphenyl and Pesticide Analytical Results

Analytical results indicate that concentrations of total PCBs were detected at four of the eight sediment sampling locations at concentrations greater than Human Health Bioaccumulation criteria

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of .0002 mg/kg at SED-01, -02, -03, and -04 from 0 to 24 in. bgs (Table 3-17). Total PCBs were detected at concentrations less than the Human Health Bioaccumulation criteria at SED-05, -06, -11, and -12. Samples SED-01 to SED-04 were collected in the upper portion of the Old Ley Creek Channel where sediments were thicker. Samples SED-05, -06, -11, and -12 were collected along the lower reach of the Old Ley Creek Channel where sediment was thinner. Water movement in the upper reach is very slow to nearly stagnant allowing for additional sediment. Water movement in the lower reach is faster with little stagnation reducing the potential for sedimentation.

Eight pesticides were detected at concentrations greater than Sediment Criteria Benthic Aquatic Wildlife Chronic Toxicity, the Human Health Bioaccumulation, or the Wildlife Bioaccumulation criterion (whichever was more stringent) at each sediment sampling location (Table 3-18). The pesticides included 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, endosulfan I, delta-BHC, gamma-BHC (lindane), gamma-chlordane, and heptachlor.

3.8 SUMMARY OF SEDIMENT ANALYTICAL RESULTS

The sediment analytical results indicate that sediment at the site is impacted by VOCs, SVOCs, pesticides, PCBs, and metals. With the exception of vinyl chloride concentrations greater than Human Health criteria at SED-03 (located immediately downstream of SPS and in an area where VOCs were noted in groundwater on the Town of Salina Landfill parcel) only limited low-level impacts to sediment by VOCs were identified. PCB and pesticide impacts are the most wide spread in both areal and vertical extents. Based on the concentrations of PCB and pesticides detected from 0 to 24 in. bgs, PCBs and pesticides will be used as the basis for determining the extent of impacts at the site. The other contaminants will be evaluated based on the amount of overlap between the locations and depths where they were identified and the locations and depths where PCBs/pesticides were identified.

Figure 3-6 illustrates the extent of the overlap between PCB impacted soils and sediment from 0 to 6 in. bgs, 6 to 12 in. bgs, and 12 to 24 in. bgs; and the other contaminants identified at the site. The bulk of the impacts to sediment are within the 0 to 25 ppm PCB boundary, which includes the upper reach of the Old Ley Creek Channel. Samples SED-03 and SED-04 have concentrations of PCBs greater than 50 ppm from 0 to 6 in. bgs and from 12 to 24 in. bgs, respectively.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 0 to 6 in. bgs indicates that:

- Five sediment sampling locations (SED-01, SED-05, SED-06, SED-11, and SED-12) are located within the 0-25 ppm PCB boundary
- One sediment sampling location (SED-04) is located within the 25-50 ppm PCB boundary
- One sediment sampling location (SED-03) is located within the >50 ppm PCB boundary.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 6 to 12 in. bgs indicates that (due to no sample recovery at SED-05, -06, -11, and -12 from 6 to 24 in. bgs no data are available):

- Four sediment sampling locations (SED-01, SED-02, SED-03, and SED-04) are located within the 0-25 ppm PCB boundary
- No sediment sampling locations are located within the 25-50 ppm PCB boundary
- No sediment sampling locations are located within the >50 ppm PCB boundary.

A review of the sampling locations with SVOC, pesticide, and metals impacts greater than the Part 375 SCO from 12 to 24 in. bgs indicates that (due to no sample recovery at SED-05, -06, -11, and -12 from 6 to 24 in. bgs no data are available):

- Two sediment sampling locations (SED-02 and SED-03) are located within the 0-25 ppm PCB boundary
- One sediment sampling location (SED-01) is located within the 25-50 ppm PCB boundary
- One sediment sampling location (SED-04) is located within the >50 ppm PCB boundary.

This suggests that remedial efforts to remove PCB-impacted soils completed in these areas from 0 to 24 in. bgs (e.g. excavation and disposal) would also include removal of sediments impacted with SVOCs, pesticides, and metals from this depth interval.

3.9 GROUNDWATER SAMPLING ANALYTICAL RESULTS

This section presents a summary of the results for chemical analyses performed on groundwater samples collected from the monitoring well network associated with this RI. For comparing the groundwater results to appropriate SCGs, groundwater results were compared to NYSDEC Ambient Water Quality Standards (AWQS) for Class GA water. Groundwater grab samples were collected from the three new monitoring wells which were screened within the overburden. When discussing groundwater quality, this RI Report is referring to the water bearing zone at depths ranging from approximately 8 to 20 ft bgs.

Groundwater samples were collected during a single sampling event from three monitoring wells OLCCMW-01 to OLCCMW-03. Groundwater samples were collected from each well on 24 May 2010. The groundwater samples were analyzed using USEPA Method 8260 (VOCs), USEPA Method 8270 (SVOCs), USEPA Methods 8082/8081 (PCBs/pest), and USEPA Methods 6010/7470 (TAL metals/mercury).

3.9.1 Volatile Organic Compounds Analytical Results

An estimated concentration of methyl tert butyl ether (MTBE) was identified at monitoring well OLCCMW-02 (3.4J ug/l). There is no Class GA groundwater standard for MTBE. This is the only VOC identified during sampling (Table 3-19).

3.9.2 Semivolatile Organic Compounds Analytical Results

A single SVOC was detected in the groundwater sample collected from OLCCMW-03. An estimated concentration of bis(2-ethylhexyl phthalate) was identified at 4.5J μ g/l (Table 3-20). The Class GA groundwater standard for this compound is 5 μ g/l. This is a plasticizer commonly found in tubing and supplies used in the collection and analysis of samples, and is considered a potential lab contaminant. The 2009 CHA report identified bis(2-ethyl-hexyl) phthalate as a potential lab contaminant. Two other SVOCs were identified in the report including phenol and 3,4- methylphenol.

3.9.3 Metals and Mercury Analytical Results

Numerous metals were identified in both total and dissolved samples collected from this site (Table 3-21). Total and dissolved samples were collected in order to determine the potential impact turbidity may have on the concentrations of metals (i.e., potential for false positives). Metals identified in the samples include aluminum, antimony, arsenic, barium, calcium, chromium, copper, iron, magnesium, manganese, nickel, potassium, selenium, sodium, vanadium, and zinc. Only antimony, iron, magnesium, manganese, selenium, and sodium were detected at concentrations greater than their Class GA AWQS. Iron, magnesium, manganese, and sodium were also detected during groundwater sampling conducted in support of the Town of Salina Landfill (CHA 2009). The CHA report suggested that concentrations of iron, magnesium, and manganese were potentially related to turbidity or possibly leachate indicators. Groundwater flow patterns and turbidity measurements indicate that the concentrations of these compounds at the Old Ley Creek Channel site are not likely the result of leachate impacts from the landfill or from elevated turbidity.

3.9.4 PCBs and Pesticide Analytical Results

Both total and dissolved groundwater samples were collected from the three monitoring wells for the analysis of PCBs. Groundwater samples were also collected from the three monitoring wells for the analysis of pesticides. Analysis indicates that no PCBs or pesticides were detected in groundwater at the site. This is consistent with the CHA groundwater sampling report (2009).

3.10 SURFACE WATER SAMPLING ANALYTICAL RESULTS

This section presents a summary of the results for chemical analyses performed on surface water samples collected from 10 locations. For comparing the surface water results to appropriate SCGs, the results were compared to NYSDEC AWQS for Class B streams using aquatic chronic (A[C]) guidance values. Pesticides are compared to Class B Stream Human Consumption of

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Fish (H[(FC)]) standards. Aquatic chronic standards were established for the protection of aquatic life from chronic effects of different contaminants. Surface water grab samples were collected from the 10 sampling locations. Surface water samples were collected during three sampling events, a low-water event (14 January 2010), a high-water event (26 January 2010), and three additional samples collected during the groundwater sampling effort on 24 May 2010. During each sampling event, water quality parameter data were collected and are provided in Appendix J. The samples were submitted for VOC analysis by USEPA Method 8260B, SVOC analysis by USEPA Method 8270C, TAL metals analysis by USEPA Method 6010, and PCBs and pesticides by USEPA Method 8082/8081A.

3.10.1 Surface Water Volatile and Semivolatile Organic Compound Analytical Results

Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. VOC analysis of the samples collected during the low-water sampling indicates that low-level concentrations (less than the Class B A (C) standard) were identified at each of the sampling locations (Table 3-22). The VOCs identified include 1,2,4-trimethylbenzene, acetone, benzene, chloroethane, *cis*-1,2-dichloroethene, m,p-xylene, naphthalene, o-xylene, toluene, trichloroethene, vinyl chloride, and total xylenes. As stated earlier, the SPS treatment system which discharges to the Old Ley Creek Channel is a potential source of impacts to sediment and surface water. The design parameters of the system and the discharge permit requirements are unknown. However, analytical results suggest that the treatment system may be responsible for a portion of the impacts in environmental media at the site.

Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. VOC analysis of the samples collected during the high-water sampling indicates that low-level concentrations (less than the Class B A (C) standard) were identified at each of the sampling locations (Table 3-23). The VOCs identified include *cis*-1,2-dichloroethene, m,p-xylene, naphthalene, toluene, and vinyl chloride.

Three surface water samples were collected during the 24 May 2010 sampling event (3-24). VOC analysis of the samples collected during this event indicates that acetone, carbon disulfide, MTBE, benzene, isopropylbenzene, and toluene are at concentrations less than the Class B A(C) surface water standard.

Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. SVOC analysis of the samples collected during the low-water sampling indicates that a low-level concentration (1.3 μ g/l) of 2-methylnaphthalene (less than the Class B A (C) standard of 4.7 μ g/l) was identified at surface water sampling location SW-07 (Table 3-22).

Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. SVOC analysis of the samples collected during the high-water sampling indicates that no SVOCs were identified in surface water.

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Three surface water samples were collected during the 24 May 2010 sampling event (Table 3-25). Though the initial extraction for SW-10 SVOC analysis was completed within the holding time for the sample, due to non-compliant surrogate recoveries a re-extraction for SVOCs was completed on this sample outside of holding times. SVOC analysis of the samples collected during this event indicates that estimated concentrations of phenol, 4-methylphenol, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(g,h,i)perylene, were detected at SW-10. The concentrations are less than the Class B A(C) surface water standard.

3.10.2 Surface Water Metals and Mercury Analytical Results

Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. Metals and mercury analysis of the samples collected during the low-water sampling indicates that concentrations (greater than the Class B A (C) standard) were identified at each of the sampling locations (Table 3-26). The metals identified include aluminum, copper, and iron.

Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. Metals and mercury analysis of the samples collected during the low-water sampling indicates that concentrations (greater than the Class B A (C) standard) were identified at each of the sampling locations (Table 3-27). The metals identified include aluminum and iron.

Three surface water samples were collected during the 24 May 2010 sampling event (Table 3-28). Metals and mercury analysis of the samples collected during this event indicate that concentrations of aluminum, chromium, cobalt, copper, iron, lead, mercury, nickel, silver, vanadium, and zinc are greater than the Class B A(C) surface water standard.

3.10.3 Surface Water PCBs and Pesticides Analytical Results

Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. PCB and pesticide analysis of the samples collected during the low-water sampling indicated that no PCBs or pesticides were identified at any of the sampling locations. No pesticides were identified during the low-water sampling event.

Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. PCB analysis of the samples collected during the high-water sampling indicates that concentrations (greater than the Class B A (C) standard of 1x10⁻⁶ parts per billion) of a PCB aroclor 1248 were identified at four of the seven sampling locations (Table 3-29). The PCB was identified at sample locations SW-01, SW-02, SW-05, and SW-07. SW-01, SW-02, and SW07 are located within Old Ley Creek Channel. SW-05 is located just upstream of the confluence of the Old Ley Creek Channel and Ley Creek. No pesticides were identified during the high-water sampling event.

Three surface water samples were collected during the 24 May 2010 sampling event (Table 3-30). PCB and pesticide analysis of the samples collected during this event indicate that

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concentrations of either aroclor 1248 or 1254, or both, are greater than the Class B A(C) surface water standard at SW-09 and SW-10. Surface water sampling location SW-09 is a seep located at the base of fill between surface soil sampling locations SS-14 and SS-15. Concentrations of PCB slightly greater than SCOs were identified at SS-14 and SS-15. PCB analysis at soil boring SB-14 identified no PCBs. PCB analysis at soil boring SB-15 indicated concentrations of PCBs at 4-8, 8-12, and 12-14 ft bgs; the highest concentration (28 ppm) was at 8-12 ft bgs. SW-10 is located downstream of the SPS treatment system. Sediment sample SED-03 located immediately downstream from SW-10 had concentrations of PCBs from 0 to 6 in. of 57.4 ppm.

Pesticides were detected in the May 2010 surface water sampling event (Table 3-31). Pesticides are compared to Class B Stream Human Consumption of Fish (H[(FC)]) standard. Heptachlor, heptachlor epoxide, 4,4'-DDE, 4,4'DDD, and 4,4'-DDT were identified at SW-09 at concentrations greater than their respective Class B H(FC) surface water standards. Concentrations of pesticides were identified at SS-14 and SS-15 including 4,4'-DDT and heptachlor epoxide. Heptachlor and aldrin were identified at SW-10 at concentrations greater than their respective Class B H(FC) surface water standards. Gamma BHC, heptachlor, aldrin, endosulfan sulfate, and gamma chlordane were also identified at SED-03, the nearest sampling location to SW-10. No pesticides were identified at SW-08.

3.11 DATA VALIDATION

The analytical data results were submitted to Nancy J. Potak for validation. This validation included a review of pertinent QA/QC data such as sample extraction and analysis, holding times, calibration, a review of laboratory blanks and QA/QC sample results, and a review of the analytical case narrative. A Data Usability Summary Report was prepared which includes a compliance chart, a list of samples included in each sample delivery group, and recalculations of sample results. Nonconforming QA/QC results were evaluated with respect to their implications for data reliability and usability, and data results were flagged accordingly on the results sheets. These qualifiers were entered into the site-specific database and appear in the summary tables presented in this report. Data Usability Summary Reports for the analytical data packages are provided in Appendix G.

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4. FATE AND TRANSPORT

This chapter presents the environmental fate and transport mechanisms for contaminants of concern (COC) identified at the Old Ley Creek Channel site during the RI. The COCs are evaluated to determine the potential for continued on-site presence and off-site migration. The evaluation process assists in the determination of the current and future potential for COC exposure to human populations and the potential technologies that may be appropriate for remediation of the site.

Three main factors are evaluated when assessing a COCs fate and transport in the environment:

- Physiochemical characteristics of individual COCs
- Site environmental characteristics
- Biological interactions.

4.1 CONTAMINANTS OF CONCERN PHYSICOCHEMICAL CHARACTERISTICS

Table 4-1 summarizes the physiochemical characteristics of the COCs identified within the soil and sediment at the Old Ley Creek Channel site that can influence their fate and transport. The COCs identified are compounds that were detected at concentrations greater than their SCOs in either soil or sediment. The specific characteristics are discussed in the following sections.

4.1.1 Water Solubility

Water solubility is the measure of the compounds ability to dissolve in water and is typically expressed in a unit of mass/volume (e.g., mg/L or $\mu g/L$). Aqueous solubility is one factor that can affect the compounds concentration in water and residence time in water. Compounds showing high water solubility remain in solution while compounds with low solubility tend to remain in a solid state (are hydrophobic). When reviewing Table 4-1, it should be noted that the non-chlorinated alkene acetone has a much higher water solubility (hydrophilic compound) than do the pesticides, PCBs, and SVOCs.

4.1.2 Volatilization

The process of volatilization involves the movement of a compound from the surface of a liquid to the vapor phase. Typically, only the neutral or uncharged form of a compound can volatilize. Volatilization is calculated from the equilibrium vapor pressure which is essentially the solubility of the compound in air (measured as a partial pressure). When measuring a compound's fate in the environment, a more manageable index is the Henry's Law Constant, which defines the ratio of the compound's vapor pressure and water solubility, reported in units of atm-m³/moles. Generally, compounds with a higher Henry's Law Constant (10⁻³)tend to volatilize more readily than those with lower Henry's Law Constants (10⁻⁵).

When evaluating Table 4-1, the non-chlorinated alkene acetone identified at the site would readily volatilize when in contact with air. The other COCs (SVOCs, pesticides, and PCBs) have low Henry's Law Constants which result in lower volatility.

4.1.3 Adsorption/Desorption

Adsorption/desorption represents the degree to which compounds are bound to a solid matrix. Strongly adsorbed compounds are not available for loss processes such as hydrolisis and oxidation, and are not readily transported in the dissolved phase. However, due to the strong affinity in solid matrices, these compounds can be readily transported via particle transport mechanisms (e.g., surface runoff and erosion, suspended sediments in rivers or streams). Partition coefficients are used to quantify adsorption and desorption.

Partition coefficients are concentration ratios of the compound between two phases and include K_{ow} , K_d and K_{oc} ; all have units of L/kg. The K_{ow} is the octanol-water partition coefficient, which quantifies the concentration ratio of the compound in the octanol (organic) phase and aqueous phase. Octanol is used as a substitute for lipids; therefore, the K_{ow} is typically used to relate the compound partitioning from water to biota. The K_d is the concentration ratio of the compound between a solid and aqueous phase at steady-state. The K_d is constant for inorganic analytes (metals), but varies for organic analytes. The latter led to the usage of the K_{oc} , which is the organic carbon-water partition coefficient. The product of the compounds K_{oc} and the organic carbon content of the site soil or sediment is the site specific K_d for the compound. Higher values for K_{ow} , K_d , and K_{oc} indicate a preference of the compound for the non-aqueous phase (low solubility in water).

The SVOCs, pesticides, and PCBs identified at the site (with the exception of acetone) have high $K_{\rm ow}$ and $K_{\rm oc}$ values. These compounds are less mobile (tend to be less soluble in water), but more persistent in the environment.

4.2 SITE ENVIRONMENTAL CHARACTERISTICS

The environmental characteristics of the site can have influence on the fate and transport of the COCs present, and include geology, hydrology, and surface drainage.

4.2.1 Geology

The local geology of the site was detailed in Section 3.1. The depth and composition of the unconsolidated soil in the vadose zone was relatively constant across the site. The thickness of the vadose zone across the site was approximately 0-8-ft thick in most areas. The soil in the vadose zone is typically moist and consists of combinations of clay, silt, and silty clay at the surface. The saturated soil within the shallow aquifer is from 8 to 20 ft bgs terminating at a dense till layer. Soil in the phreatic zone consists of a combination of sand and gravel. The underlying till unit was encountered between 15 and 20 ft bgs at the site. Soil borings completed

in support of the Town of Salina landfill indicate that the till unit is from 15 to 30 ft bgs (CHA 2009). The till is continuous throughout the area.

The Old Ley Creek Channel site lies within Vernon Formation which consists of upper Silurian shale and dolostone.

4.2.2 Hydrogeology

The local hydrogeology was detailed in Section 3.2. The analysis of data collected during this RI focused on the shallow unconfined aquifer. Lateral migration of water through the overburden is through interstitial spaces between the grains and is controlled by hydraulic gradients across the site. Groundwater flow patterns mimic topography of the site, flowing radially from the recharge areas to Ley Creek and Old Ley Creek Channel which act as discharge zones. The CHA report (2009) indicates that groundwater may potentially be recharged by Old Ley Creek Channel in the vicinity of monitoring wells MW-18 and MW-19. The conditions during the sampling and gauging event completed by CHA are unknown (if there was a storm event the old channel may have had surface water elevations greater than the local groundwater elevations resulting in it becoming a losing stream during that time period). Groundwater and surface water conditions during the 24 May 2010 sampling effort indicate that groundwater was discharging to both Ley Creek and Old Ley Creek Channel indicating that the streams were gaining.

4.2.3 Surface Drainage and Topography

Topographic relief (including the area to the west outside of the Old Ley Creek Channel site boundary) varies. The highest elevation in the area is approximately 384 ft above mean sea level (amsl) in the center of Town of Salina Landfill parcel east of Ley Creek. The lowest elevation is 363 ft amsl at the confluence of the Old Ley Creek Channel and Ley Creek, a total relief of 21 ft. Old Ley Creek Channel is bounded by the Town of Salina Landfill parcel to the west and State Route 11 to the east. State Route 11 is approximately 378 ft amsl, the old channel is approximately 367 ft amsl, and the Town of Salina Landfill parcel is approximately 384 ft amsl. It appears that the landfill was constructed in a former wetland that was part of the drainage basin of Old Ley Creek Channel and Ley Creek. A historic topographic map from 1947 identifies a wetland complex west and southwest of Old Ley Creek Channel northwest (Appendix K).

Historically and prior to construction of the new course, Old Ley Creek Channel drained an area east of Syracuse Airport through an industrialized area eventually discharging to Onondaga Lake to the southwest. Old Ley Creek Channel is recharged through a culvert in the northern portion of the site, from groundwater recharge, and precipitation.

4.3 BIOLOGICAL INTERACTIONS

The interactions between COCs and biota present at the Old Ley Creek Channel site may also affect the COCs fate and transport. These interactions are described in the following sections.

4.3.1 Biodegradation

Biodegradation of the COCs can occur and be interceded by both micro-organisms and higher biota. Transformation compounds the by-products of these biodegradations which may or may not be toxic to the organism may be further transformed by other organisms. Biodegradation includes a variety of enzyme-catalyzed oxidation and reduction processes. It has been documented that there is potential for biodegradation of PCBs to occur in sediments by micro-organisms. Investigations have shown that PCBs are susceptible to biodegradation processes, such as environmental dechlorination (i.e., congeners richer in chlorine appear to degrade slowly resulting in a higher number of congeners with fewer chlorine ions). The hypothesis is that the dechlorination is being done through dehalorespiration where organisms use the highly chlorinated PCBs as electron acceptors (Manahan, 2005). A typical degradation process is shown below for PCB, which is a main COC:

$$\{CH_2O\}+H_2O+CL-PCB \rightarrow CO_2+2H^++2CL^-+2H-PCB$$

Where CL—PCB represents a site of chlorine substitution on a PCB molecule and 2H—PCB represents a site of hydrogen substitution. This process occurs in sediments under anaerobic conditions with long residence times.

4.3.2 Bioconcentration

Bioconcentration is the accumulation of compounds by biota to greater concentrations than present in the aqueous phase. This is quantified using the bioconcentration factor which is the ratio of the compound concentration in the biota and in the water. As stated in Section 4.1.3, bioconcentration factors are typically expressed in units of L/kg and higher values of $K_{\rm ow}$, $K_{\rm d}$, and $K_{\rm oc}$ indicate a preference of the compound for the non-aqueous phase (low solubility in water). The majority of the COCs reported in the on-site subsurface soil typically had high values for $K_{\rm ow}$, $K_{\rm d}$, and $K_{\rm oc}$ which means they would be more persistent in the on-site soil and biota, are hydrophobic, and do not tend to mobilize with the groundwater. Site sediments impacted with PCBs, pesticides, and SVOCs can be mobilized in surface water because of their affinity to adsorb to particulate matter.

4.3.3 Bioaccumulation

Bioaccumulation is the accumulation of compounds by biota from both aqueous phase and dietary phase exposure. The bioaccumulation factor, when related to the aqueous phase concentrations, is larger than the actual bioconcentration factor. No biota samples were taken during this RI to confirm whether the site was serving as a source to compounds accumulating in biota.

4.4 TRANSPORT AND MECHANISMS OF MIGRATION

Based upon the COCs physiochemical characteristics, geology and hydrogeology at the site, and the nature and extent of impacted media, COCs migration may be via several pathways. These pathways included migration of COCs via groundwater (metals only) and through sediment transport in surface water (pesticides and PCBs).

4.4.1 Migration of Emissions from Soil or Groundwater to Air

The COCs identified at the site, with the exception of acetone, have limited volatility; therefore, the migration of emissions from soil or groundwater to air is considered limited. No soil vapor sampling was conducted under this RI.

4.4.2 Migration within the Shallow Groundwater

COCs identified in groundwater at the site include the metals antimony, iron, manganese, and sodium detected at concentrations greater than their Class GA AWQS. No pesticides or PCBs were identified in groundwater samples. A single VOC (an estimated concentration of MTBE) was identified at OLCMW02 and a single SVOC (bis[2-ethyl-hexyl]) phthalate was identified at a concentration less than the AWQS. As such, only metals will be discussed in this section.

The physiochemical characteristics of the metals indicate that they have high water solubility and hence are mobile. Groundwater migration of these COCs would follow groundwater flow patterns.

The groundwater flow patterns for the site indicated that the flow is radial from the Town of Salina Landfill parcel, northwest to southwest toward Ley Creek, and east and south toward Old Ley Creek Channel. Groundwater flow on the Old Ley Creek Channel site is toward the old channel. The flow direction confirms the COCs migration pathway identified from the groundwater samples collected at the site. Because of the limited size of the site and the two parcels being bounded by Ley Creek and Old Ley Creek Channel, the migration pathways of dissolved metals is short with discharge directly to the surface water bodies.

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5. QUALITATIVE EXPOSURE ASSESSMENT

This chapter identifies potential current and future human receptors and their associated exposure pathways and provides a qualitative assessment of the potential significance of the exposure pathways as determined by the RI.

5.1 SITE SETTING

The Old Ley Creek Channel site is currently owned by Plaza East, LLC. There are no structures onsite. However, there is unrestricted public access to the site. No human receptors are present at the site. The 3.5 acre site is located on the west side of State Route 11 (Wolf Street) southwest of the intersection of State Route 11 and Factory Avenue. The site is wooded and includes a 1.8-acre wetland designated as a PSS1E by U.S. Fish and Wildlife Service National Wetland Inventory.

5.2 NATURE AND EXTENT OF CHEMICAL CONSTITUENTS

The nature and extent of chemical constituents that are being evaluated under this exposure assessment are limited to the chemicals reported in on-site soils (primary source) and surface water (secondary source). Surface and subsurface soil is considered the source of COC at the site and, as such, was the only on-site media evaluated as part of this RI. Because of the short distance between groundwater recharge and discharge zones, off-site groundwater was not evaluated under this RI. Primary COCs onsite include PCBs, pesticides, SVOCs, and metals. These COCs were reported at levels exceeding the applicable SCGs for surface and subsurface soil, sediment, and surface water, and the protection of groundwater. Because PCBs are the primary COC and they were identified in the broadest areal extent and at depth in the surface and subsurface soils, they will be evaluated extensively in this section. By evaluating, managing, and remediating the PCBs, in this case, it is also possible to manage the other site COCs.

5.3 SELECTION OF CONTAMINANTS OF CONCERN

SVOCs, pesticides, PCBs, and metals were detected in the surface and subsurface soil and surface water media at the Old Ley Creek Channel site. COCs for the site were selected following the practice established by the USEPA in the Risk Assessment Guidance for Superfund Volume I, Part A (USEPA, 1989). The selection criteria were as follows:

- The frequency of detection for chemicals in surface and subsurface soil, sediment, and surface water was utilized to determine COCs. Chemicals with a frequency of detection of less than 5 percent in a data set of 20 or more samples were excluded from this assessment. Also, consideration was given as to whether the detected chemical is related to historic and current uses of the site.
- Chemicals not detected at least once above the limit of detection were automatically excluded from this assessment, regardless of the size of the data set.

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A summary list of COCs by medium is provided in Table 5-1. Relevant and appropriate values (i.e., SCGs) for these COCs are discussed in Chapter 3.

This human exposure assessment provides qualitative descriptions of potential exposure to siterelated COCs for human populations who may reasonably be expected to contact site media under present or future conditions. This qualitative assessment is comprised of two components:

- Description of exposure setting and identification of potentially exposed populations
- Identification of exposure pathways.

These components are discussed in greater detail in the following sections.

5.4 EXPOSURE SETTING AND IDENTIFICATION OF POTENTIALLY EXPOSED POPULATIONS

This section identifies potential receptors and exposure pathways. A complete exposure pathway is one that meets the following criteria (NYSDEC, 2002; USEPA, 1989):

- A source of COC must be present.
- Release and transport mechanisms and media must be available to move the chemicals from the source medium to an exposure medium.
- An opportunity must exist for receptors to contact the affected media.
- A receptor population and a means for chemical uptake (e.g., ingestion, inhalation) must exist.

Under current and future site use conditions, the potentially exposed populations (i.e., potential receptors) are those that might come into contact with the COCs. Table 5-2 presents the exposure pathway matrix and depicts the various exposure routes for current and future on-site and off-site human populations.

5.4.1 Scenarios

Because the site is currently vacant, on-site human populations considered in this qualitative exposure assessment are on-site trespassers, adult commercial workers, adult and child visitors, and adult construction workers. A complete exposure pathway to surface and subsurface soil, sediment, and surface water at the site is likely for each population identified.

Current off-site human populations considered in this qualitative exposure assessment include adult commercial and industrial workers, adult and child visitors to commercial/industrial establishments, adult construction workers, and adult nearby utility workers. A complete exposure pathway to surface and subsurface soil, sediment, and surface water is likely for each current off-site human population.

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5.4.2 Future Scenarios

Future human populations considered in this exposure assessment include on-site and off-site construction workers, nearby off-site utility workers, on-site commercial workers, and on-site adult and child visitors to commercial/industrial establishments.

On-site construction workers are considered since virtually any site redevelopment would involve construction activity in some form. Potential on-site exposure media for construction workers would include surface and subsurface soil, sediment, surface water, and groundwater. While not evaluated as part of this RI, soil particulate in soil ambient air during construction excavation activities may be complete exposure pathways for this population.

Off-site construction work exposure to areas surrounding the site is considered in the event of future off-site redevelopment. Chemical exposure for nearby off-site utility workers could be expected because of the presence of subsurface utility lines in areas adjacent to the site. Potential off-site exposure media of construction workers and nearby off-site utility workers would include surface and subsurface soil, groundwater, surface water, and sediment as analyzed during this RI. In addition, soil particulates in ambient air during construction activities may impact off-site construction workers.

The possibility exists that the site may be used in the future for commercial purposes. Thus, exposure of adult on-site commercial workers and adult and child visitors to future on-site commercial establishments is possible. These individuals may be exposed to surface and subsurface soils, surface water, and sediments exhibiting contamination. It is expected that future land use may be deed restricted to prevent residential development; however, because deed restrictions are not yet in place, a future on-site residential scenario is included in this assessment. Potential on-site exposure media for these future on-site residents and/or workers would include surface and subsurface soil, groundwater, surface water, and sediment.

5.5 IDENTIFICATION OF EXPOSURE PATHWAYS

Table 5-2 provides qualitative descriptions of the potentially complete exposure pathways for current and future on-site and off-site human populations, and anticipates level of exposure potential.

Under current site use conditions, the on-site trespasser may receive exposure to surface subsurface soil, sediment, surface water, and groundwater via ingestion (oral), inhalation, or dermal contact. Current off-site populations may have exposure to surface and subsurface soil, sediment, surface water, and groundwater at the Old Ley Creek Channel site.

Under future site use conditions, on-site adult commercial and industrial workers, on-site construction workers, adult and child visitors, adult and child residents may potentially receive exposure to surface and subsurface soil, sediment, surface water, and groundwater through ingestion and dermal contact; and soil particulate in ambient air through inhalation. There is potential exposure for adult commercial and industrial works, adult and child visitors, adult

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construction workers, and nearby off-site utility and construction workers, which may potentially receive exposure to surface and subsurface soil, sediment, surface water, and groundwater through ingestion and dermal contact; and soil particulate in ambient air through inhalation.

5.6 CONCLUSIONS

There are several distinct human populations both on-site and in the vicinity of the site that could potentially be exposed to site-related COCs. Current on-site populations which may be exposed include trespassers. Current off-site populations which may be exposed include adult commercial and industrial workers, adult construction workers, adult and child visitors to commercial/industrial establishments, and adult nearby utility workers. Under future site use conditions, potential populations at risk of exposure include construction and utility workers, commercial/industrial workers, adult and child visitors to future on-site commercial establishments, and adult and child residents. A summary of the potential exposure pathways, by receptor, medium, and potential for exposure are presented in Table 5-2.

The RI and qualitative human exposure assessment have indicated that there are actual and potential pathways through which populations on-site and off-site could be exposed to potentially hazardous materials related to the Old Ley Creek Channel site. The potentially complete exposure pathways should be further evaluated to determine the best course of action to address them. These actions may consist of engineering and/or administrative controls and should be addressed in the development of a Remedial Action Plan for the site.

6. FISH AND WILDLIFE IMPACT ANALYSIS

Following the Appendix 3C Decision Key in the NYSDEC's Fish and Wildlife Resources Impact Analysis guidance document (NYSDEC, 2010), a Fish and Wildlife Resources Impact Analysis was deemed required (Table 6-1). Therefore, the following analysis identifies actual or potential risks to fish and wildlife residing on and in the vicinity of the Old Ley Creek Channel site from compounds potentially migrating from the site. The analysis focuses on risks associated with site-related compounds detected in the surface and subsurface soil, surface water sediment, and groundwater. This analysis contains:

- Site descriptions and a characterization of plant and animal resources and their value to humans.
- Evaluation of potential exposure pathways to fish and wildlife from site-related contaminants of ecological concern (COECs).
- Comparison of concentrations of COECs to regulatory criteria or derived toxicological benchmarks for the protection of fish and wildlife.
- Conclusions regarding the potential of exposure and possible risks to fish and wildlife on and in the vicinity of the site.

6.1 SITE DESCRIPTION

The purpose of this section is to identify the fish and wild life resources that presently exist and that existed before contaminant introduction. Included are figures that illustrate the site topography, cover type, and surface water drainage. In addition, applicable SCGs include 6 NYCRR Subpart 375-6 SCOs, Division of Water Technical and Operational Guidance Series 1.1.1, Technical Guidance for Screening Contaminated Sediments, Freshwater Wetlands Delineation Manual (NYSDEC 1995), Freshwater Wetlands Act Environmental Conservation Law Article 24, 6 NYCRR Parts 663 and 664, and Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Site (NYSDEC 2010).

Figure 6-1 is a topographic map with a radius of 2 mi from the site. The map includes regulated wetlands, streams, and lakes. The New York State Natural Heritage Program only identified red pigweed (*Chenopodium rubrum*) and troublesome sedge (*Carex molesta*), state listed threatened species, within a 2-mi radius of the site. Red pigweed was last documented in 1940 and troublesome sedge was last documented in 1999. The map indicates that the following regulated wetlands, streams, and lakes are identified within the 2-mi radius: Onondaga Lake, Ley Creek, and Beartrap Creek.

Figure 6-2 illustrates major vegetative communities including wetlands, aquatic habitats, NYSDEC significant habitats, areas of special concern within a 0.5 mi radius. The NYSDEC Natural Heritage Program descriptions and classifications are used to identify the cover types.

6.2 CONTAMINANT-SPECIFIC IMPACT ASSESSMENT

The objective of the contaminant-specific impact assessment is to determine the impacts of site-related contaminants on fish and wildlife resources. The impacts are predicted on the contaminants of environmental concern (COECs), the concentrations of contaminants in the media, the exposure of biota to the contaminants, and the toxic effects of the exposures. The impact has to demonstrate that contamination has a minimal impact on resources or, if significant impacts exist, identify the effects of site-related contaminants on the productivity, diversity, biomass, abundance, usability, etc. of fish and wildlife. The following sections, Pathway Analysis, Criteria-Specific Analysis, and Analysis of Toxic Effects will assess the impacts of site-related contaminants on fish and wildlife.

6.2.1 Pathway Analysis

In this section, fish and wildlife resources, COECs, sources of contaminants, and potential pathways of contaminant migration and exposure will be identified. Fish and wildlife resources are described for the various cover types identified in the following section. The area includes numerous cover types within a 0.5-mi radius and the plants and animals identified in each of the areas, or expected to be found in each of the cover types.

Based upon activities completed onsite and information obtained from the New York Natural Heritage Program Draft Ecological Communities within New York State (NYSDEC, 2002), the following distinct ecological habitat types and wildlife identified and potentially associated with these habitat types were identified within a 0.5-mi radius of the site:

- **Urban structure exterior:** the exterior surfaces of metal, wood, or concrete structures (such as commercial buildings, apartment buildings, houses, bridges) or any structural surface composed of inorganic materials (glass, plastics, etc.) in an urban or densely populated suburban area. These sites may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitats for birds and insects, and roosting sites for bats. Characteristic birds include common nighthawk (*Chordeiles minor*) on rooftops, American robin (*Turdus migratorius*) on porches or under shelter, and exotic birds such as rock dove (*Columba livia*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*).
- Landfill/dump: the site appears to have been a wetland complex that has been filled with a variety of waste streams. The bulk of the visible residual material in the landfill or dump is inorganic material (plastic, glass, metal, etc.).
- Industrial Effluent Stream: the aquatic community of a stream or a small section of a stream in which the temperature, chemistry, or transparency of the water is significantly modified by discharge of effluent from an industrial, commercial, or sewage treatment plant. The water or sediments may contain elevated concentrations of heavy metals, PCBs, ammonia, and other pollutants. Relative to unpolluted streams of similar

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morphology, species richness of fishes is low, and pollution-intolerant species (e.g., lampreys, darters, sculpins) may be absent. Algae indicative of eutrophic conditions and iron fixing bacteria may be abundant.

Shrub Swamp: an inland wetland dominated by tall shrubs that occurs along the shore of a lake or river, in a wet depression or valley not associated with lakes, or as a transition zone between a marsh, fen, or bog and a swamp or upland community. The substrate is usually mineral soil or muck. This is a very broadly defined type that includes several distinct communities and many intermediates. Shrub swamps are very common and quite variable. They may be co-dominated by a mixture of species, or have a single dominant shrub species. The primary facultative wet species identified within the boundary consisted of highbush blueberry (Vaccinium corymbosum), jewelweed (Impatiens capensis), and reedgrass (Phragmites australis). Ground lilly (Glechoma hederacea) was the primary facultative upland species identified at the boundary. The obligate species identified was duckweed (*Lemna minor*). This area has been mapped as a palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated wetland. Mammal and bird species identified include muskrat (Ondatra zibethicus), gray squirrel (Sciurus carolinensis), eastern chipmunk (Tamias striatus), white tailed deer (Odocoileus virginianus), woodchuck (Marmota monax), red winged blackbird (Agelaius phoeniceus), American robin (*Turdus migratorius*), mourning dove (*Zenaida macroura*), and blue heron (Ardea herodias),

The wetland area is recharged from a culvert that daylights from beneath State Route 11 in the northern portion of the site, groundwater, and two seeps located on the eastern and southern boundary of the wetland.

- Mowed lawn with trees: residential, recreational, or commercial land in which the ground cover is dominated by clipped grasses and forbs, and it is shaded by at least 30 percent cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50 percent cover. The groundcover is maintained by mowing. Characteristic animals include gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*) American robin (*Turdus migratorius*), mourning dove (*Zenaida macroura*), yellow warbler (*Dendroica petechia*), cardinal (Cardinalis cardinalis), and mockingbird (Mimus polyglottos).
- **Paved road/path:** a road or pathway that is paved with asphalt, concrete, brick, stone, etc. There may be sparse vegetation rooted in cracks in the paved surface.
- **Brushy cleared land:** land that has been clearcut or cleared by brush-hog. There may be a lot of woody debris such as branches and slashings from trees that were logged. Vegetation is patchy, with scattered herbs, shrubs, and tree saplings. The amount of vegetative cover depends on soil fertility and the length of time since the land was cleared.

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- Lacustrine cultural (open water): communities that are either created and maintained by human activities, or are modified by human influence to such a degree that the trophic state, morphometry, water chemistry, or biological composition of the resident community are substantially different from the character of the lake community as it existed prior to human influence (i.e., Onondaga Lake).
- Successional northern hardwoods: a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: quaking aspen (*Populus tremuloides*), bigtooth aspen (*P. grandidentata*), balsam poplar (*P. balsamifera*), paper birch (*Betula papyrifera*) or gray birch (*B. populifolia*), pin cherry (*Prunus pensylvanica*), black cherry (*P. serotina*), red maple (*Acer rubrum*), white pine (*Pinus strobus*), with lesser amounts of white ash (*Fraxinus americana*), green ash (*F. pensylvanica*), and American elm (*Ulmus americana*). Northern indicators include aspens, birches, and pin cherry. This is a broadly defined community and several seral and regional variants are known. Characteristic birds include yellow warbler (*Dendroica petechia*), cardinal (*Cardinalis cardinalis*), chestnut-sided warbler (*Dendroica pensylvanica*), Nashville warbler (*Vermivora ruficapilla*) in young forests with aspen and birch seedlings, and yellow-bellied sapsucker (*Sphyrapicus varius*) in mature aspen forests.

Observation of Stress

Though obvious signs of landfill activities had occurred at the site (debris piles and residual waste was observed throughout the site) no signs of stress to vegetation and wildlife at or around the site were noted during the field activities undertaken at the site.

Value of Habitat to Associated Fauna

The residential, commercial, and industrial properties are of little value to wildlife. The area surrounding the Old Ley Creek Channel is developed and only isolated areas of vegetation exist within 0.5-mi of the site. The site itself is wooded with 1.1 acres of wetland. Though diversity appears to be low white tailed deer (*Odocoileus virginianus*), great blue heron (*Ardea herodias*), yellow warbler (*Dendroica petechia*), cardinal (*Cardinalis cardinalis*), and woodchuck (*Marmota monax*) were identified at the site. The wildlife expected to occur in the vicinity of the site included urbanized bird and mammalian species such as mockingbird (*Mimus polyglottos*) and gray squirrel (*Sciurus carolinensis*). Due to the limited size of other habitat types in the vicinity of the site, larger mammalian and bird of prey species are not likely to occur.

Value of Resources to Humans

The site and surrounding area is of little value to humans for recreational use or wildlife. Bird feeders may be in residential yards and minimal recreational use of the nearby parks may occur. The developed nature of the area precludes hunting of small game and deer in the vicinity of the site.

6.3 CRITERIA-SPECIFIC ANALYSIS

A criteria-specific analysis presumes the presence of contaminated resources and pathways of migration for site-related contaminants. Where published numerical data for analysis did not exist, then methods described in the appropriate SCGs were used to develop the standard (e.g., use of hardness for metals evaluation and total organic carbon for evaluation of organic compounds in sediment). Because concentrations of PCBs, pesticides, SVOCs, and metals were greater than their respective SCGs in various environmental media analysis of toxic effects is required.

Shallow and subsurface soils, groundwater, surface water, and sediment were analyzed as part of the RI. Primary COECs onsite include various PCBs, pesticides, SVOCs, and metals.

The 3.5-acre site consists of 1.1 acres of wetland. The balance of the site is lightly forested. The COECs identified in environmental media at the site are not expected to impact plants. However, as discussed in Chapter 5, the chemical properties of the compounds identified at the site and the various media they were detected in (surface water, surface soil, subsurface soil, and sediment) makes COECs persistent in the environment and provide a complete exposure pathway for fauna at the site. Pesticides, PCBs, and SVOCs have low water solubilities, low Henry's Law constants, high $K_{\rm oc}$, and high $K_{\rm ow}$ values which indicate that have an affinity for bonding with soils with available organic carbon, do not readily volatilize, and are more fat soluble than water soluble. These chemical characteristics provide an exposure potential and the media that the COECs were detected in (surface water, groundwater, soil, and sediment) provide contact, ingestion, and inhalation pathways.

6.4 TOXIC EFFECT ANALYSIS

A toxic-effect analysis presumes that fish and wildlife resources have been identified and that the contamination of resources and contaminant pathways exist. Because biota samples were not collected, completion of toxic effects analysis is not possible.

6.5 CONCLUSIONS

Potential pathways for exposure have been identified between surface and subsurface soil, surface water, and sediment for fish and wildlife within the area of the site. As such, remedial activities specifically directed at wildlife exposure are recommended.

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7. CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses the conclusions and recommendations of the RI. The chapter provides a summary of the on-site conditions for the Old Ley Creek Channel site, as determined by the completion of the current RI work. This section also presents recommendations for management of the Old Ley Creek Channel site in the immediate future.

7.1 SUMMARY OF IMPACTS AT THE OLD LEY CREEK CHANNEL SITE

The following sections briefly summarize the environmental impacts at the Old Ley Creek Channel site. This section is organized by areas of potential concern for the Old Ley Creek Channel site. Areas of concern and the impacts associated with the environmental media are based on analytical results and their comparison with the appropriate SCGs. Table 7-1 summarizes the degree of impacts of the COPCs and compares the data with the SCGs for the site. As previously stated, this RI is focused on surface and subsurface soils, surface water, groundwater, and sediment.

7.2 VOLATILE ORGANIC COMPOUNDS IN SURFACE AND SUBSURFACE SOILS

- Analytical results from the soil sampling program completed under this RI indicate that VOCs in soil at concentrations greater than SCGs are limited to acetone. Though other VOCs were detected, their concentrations were less than their SCGs. Acetone was detected at several locations and depths ranging in concentration from 0.0011 to 25 ppm (at soil boring SB-12 from 8 to 12 ft bgs). Acetone was identified in groundwater at 10 ppm at monitoring well MW-14 in an area not hydraulically connected to the SB-12 location.
- Due to the undeveloped nature of the site and that it received surface water and sediment, and was used as a dumping site, there is no specific point source or source area identified. There are two adjacent parcels: the Town of Salina Landfill parcel and the SPS property. The landfill is undergoing a subsurface investigation and remediation. Multiple VOCs were identified in groundwater on the landfill parcel immediately adjacent to the Old Ley Creek Channel site. Groundwater from this parcel flows east-southeast toward Old Ley Creek Channel. It is unknown if the SPS property is being evaluated. There is a treatment system located on the southern bank of the Old Ley Creek Channel which appears to discharge to the channel. Groundwater on the eastern side of the old channel flows west-southwest toward the old channel.
- Figure 3-6 shows the overlay of both shallow subsurface and deep subsurface soil areas of concern. The contour lines indicate the ranges of PCB concentrations in soil from the surface to 24 inches below grade. The flags indicate locations where other contaminants in soil and sediment were identified at concentrations greater than their SCGs.

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7.3 VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

- Shallow groundwater analytical results at the Old Ley Creek Channel site identified only MTBE in groundwater at this site. The source of MTBE is unknown.
- Multiple VOCs have been identified in groundwater samples collected from the Town of Salina Landfill parcel immediately west of the old channel. Groundwater in the eastern portion of the parcel flows to the east-southeast toward the old channel where the channel acts as a local discharge zone. The VOCs were identified in monitoring wells MW-14, MW-15, and MW-19 (CHA 2009). Well MW-14 appears to be in a portion of groundwater flow that is toward Ley Creek. Groundwater flow in the area of well MW-15 is likely to be more toward Ley Creek than the old channel and groundwater flow in the area of MW-19 is toward the old channel. The VOCs identified in these wells include the chlorinated compounds 1,1,1-tricholorethane, 1,1-dichloroethane, cis-1,2-dichloroethene, and vinyl chloride. The concentrations of these and other compounds were greater than the AWQS. The highest concentrations of these compounds is in the vicinity of MW-14. The fewest number and lowest concentrations of VOCs was identified at MW-19. This suggests that groundwater at the Old Ley Creek Channel site and the Town of Salina Landfill parcel do not co-mingle or mix.

7.4 VOLATILE ORGANIC COMPOUNDS IN SURFACE WATER

• No VOCs were identified in surface water at concentrations greater than the Class B A(C) standard during any of the three surface water sampling events. Concentrations of VOCs were detected during each of the events including 1,2,4-trimethylbenzene, acetone, benzene, carbon disulfide, chloroethane, *cis*-1,2-dichloroethene, MTBE, m,p-xylene, naphthalene, o-xylene, toluene, trichloroethene, vinyl chloride, and total xylenes.

7.5 VOLATILE ORGANIC COMPOUNDS IN SEDIMENT

- Analytical results indicate that low-level concentrations of VOCs (less than their respective levels of protection) were detected at six of the eight sediment sampling locations (SED-01, -02, -03, -04, -05, and -12). Each of these locations is within the Old Ley Creek Channel.
- Vinyl chloride was detected at a concentration greater than the Human Health Bioaccumulation standard of .015 mg/kg at SED-03 (0-6, 6-12, and 12-24 inches) at 4.7, 4.6 and 3.8 mg/kg, respectively. SED-03 is located within the Old Ley Creek Channel approximately 50-ft downstream from the outfall of the SPS treatment system.

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7.6 SEMIVOLATILE ORGANIC COMPOUNDS IN SURFACE AND SUBSURFACE SOIL

- Nine SVOCs were detected in surface and subsurface soil samples greater than their respective 6 NYCRR Part 375 Unrestricted Soil Cleanup Objectives for protection of groundwater. The SVOCs detected were collected from 0 to 14 ft bgs.
- Cross sections and topographic evidence suggest that the highest concentrations and broadest types of SVOCs are related to locations where fill was identified in the soil borings or topographic evidence suggests the presence of fill near the sampling location.

7.7 SEMIVOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

• Bis(2-ethylhexyl)phthalate was identified at monitoring well MW-03 at a concentration below the AWQS.

7.8 SEMIVOLATILE ORGANIC COMPOUNDS IN SURFACE WATER

• Concentrations of several SVOCs were identified during the three surface water sampling events including, 2-methylnaphthalene at SW-07, 4-methylphenol, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(g,h,i)perylene at SW-10. These compounds were identified at concentrations less than the AWQS.

7.9 SEMIVOLATILE ORGANIC COMPOUNDS IN SEDIMENT

- Analytical results indicate that low-level concentrations of 22 SVOCs (less than their respective Levels of Protection) were detected at each of the eight sediment sampling locations.
- Five of the SVOCs detected were at concentrations greater than either the Human Health Bioaccumulation or Benthic Aquatic Life Chronic Toxicity standards. These SVOCs include benzo(a)anthracene, benzo(a)pyrene, fluorene, phenol, and phenanthrene. Combinations of these SVOCs were found at each of the sediment sampling locations. The lowest concentrations were detected at SED-01 and SED-02. These samples were collected from the upper portions of the Old Ley Creek Channel.
- The SVOCs detected include, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and phenol. The SVOCs were more wide spread and at higher concentrations at the surface soil sampling locations.

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7.10 PESTICIDES IN SURFACE AND SUBSURFACE SOIL

• Seven pesticides were identified at concentrations greater than the Part 375 SCOs at 12 of the 20 sampling locations including 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, beta-BHC, delta-BHC, endrin, and dieldrin. These pesticides were detected at various depths from 0 to 14 ft bgs.

• Other pesticides were identified at the various sampling locations, but at concentrations less than the Part 375 SCOs.

7.11 PESTICIDES IN GROUNDWATER

• Groundwater samples were collected from the three monitoring wells for the analysis of pesticides. Analysis indicates that no pesticides were detected in groundwater at the site. This is consistent with the CHA groundwater sampling report (2009).

7.12 **PESTICIDES IN SURFACE WATER**

- No pesticides were detected during the high-water and low-water sampling events in January 2010.
- Pesticides were detected in the May 2010 surface water sampling event. Pesticides are compared to Class B Stream Human Consumption of Fish (H[(FC)]) standard.
 Heptachlor, heptachlor epoxide, 4,4'-DDE, 4,4'DDD, and 4,4'-DDT were identified at SW-09 at concentrations greater than their respective Class B H(FC) surface water standards.
- Concentrations of pesticides were identified at SS-14 and SS-15 (which are adjacent to SW-09 sampling location) including 4,4'-DDT and heptachlor epoxide.
- Heptachlor and aldrin were identified at SW-10 at concentrations greater than their respective Class B H(FC) surface water standards. Gamma BHC, heptachlor, aldrin, endosulfan sulfate, and gamma chlordane were also identified at SED-03, the nearest sampling location to SW-10.
- No pesticides were identified at SW-08.

7.13 **PESTICIDES IN SEDIMENT**

• Eight pesticides were detected at concentrations greater than Sediment Criteria Benthic Aquatic Wildlife Chronic Toxicity, the Human Health Bioaccumulation, or the Wildlife Bioaccumulation criterion (whichever was more stringent) at each sediment sampling location. The pesticides included, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, endosulfan I, delta-BHC, gamma-BHC (lindane), gamma-chlordane, and heptachlor.

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7.14 PCBS IN SURFACE AND SUBSURFACE SOIL

- PCBs are the most abundant organic compound identified at the site. PCBs were identified at concentrations greater than the SCO in 133 of 154 soil samples, or 47 of 53 soil sampling locations. Concentrations ranged from 0.042 to 440 mg/kg.
- The volume of surface soil from 0 to 24 in. bgs that has a concentration of PCBs greater than 50 mg/kg is 1,256 yd³ (approximately 1,885 tons).
- The volume of surface soil from 0 to 24 in. bgs that has a concentration of PCBs between 25 and 50 mg/kg is 2,636 yd³ (approximately 3,955 tons).
- The volume of surface soil from 0 to 24 in. bgs that has a concentration of PCBs between 0 and 25 mg/kg is 6,022 yd³ (approximately 9,033 tons).

7.15 PCBS IN GROUNDWATER

• Total and dissolved groundwater samples were collected from the three monitoring wells for the analysis of PCBs. Analysis indicates that no PCBs were detected in groundwater at the site. This is consistent with the CHA groundwater sampling report (2009).

7.16 PCBS IN SURFACE WATER

- Seventeen surface water samples were collected during three different events at the site.
 The events included low-water and high-water sampling and collection of surface water samples from a culvert and two seeps which discharge to the old channel during the third event.
- Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. PCB analysis of the samples collected during the low-water sampling indicated that no PCBs were identified at any of the sampling locations.
- Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. PCB analysis of the samples collected during the highwater sampling indicates that concentrations (greater than the Class B A (C) standard of 1x10⁻⁶ parts per billion) of a PCB aroclor1248 were identified at four of the seven sampling locations. The PCB was identified at sample locations SW-01, SW-02, SW-05, and SW-07. SW-01, SW-02, and SW07 are located within the Old Ley Creek Channel. SW-05 is located just upstream of the confluence of the old channel and Ley Creek. No pesticides were identified during the high-water sampling event.
- Three surface water samples were collected during the 24 May 2010 sampling event. PCB analysis of the samples collected during this event indicates that concentrations of either aroclor 1248 or 1254, or both, are greater than the Class B A(C) surface water

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standard at SW-09 and SW-10. Surface water sampling location SW-09 is a seep located at the base of fill between surface soil sampling locations SS-14 and SS-15. Concentrations of PCBs slightly greater than SCOs were identified at SS-14 and SS-15. PCB analysis at soil boring SB-14 identified no PCBs. PCB analysis at soil boring SB-15 indicated concentrations of PCBs at 4-8, 8-12, and 12-14 ft bgs, the highest concentration (28 ppm) at 8-12 ft bgs. SW-10 is located downstream of the SPS treatment system. Sediment sample SED-03 located immediately downstream from SW-10 had concentrations of PCBs from 0 to 6 in. of 57.4 ppm.

7.17 PCBS IN SEDIMENT

- PCBs at concentrations greater than the SCG were identified in 10 of 14 sediment samples. PCBs were identified in 4 of the 8 sediment sampling locations.
- Analytical results indicate that concentrations of total PCBs were detected at concentrations greater than the Human Health Bioaccumulation criteria of .0002 mg/kg at SED-01, -02, -03, and -04 from 0 to 24 in. bgs (Table 3-x).
- Total PCBs were detected at concentrations less than the Human Health Bioaccumulation criteria at SED-05, -06, -11, and -12.
- Samples SED-01 to SED-04 were collected in the upper portion of the old channel where sediments were thicker. Samples SED-05, -06, -11, and -12 were collected along the lower reach of the old channel where sediment was thinner.
- Water movement in the upper reach is very slow to nearly stagnant allowing for additional sediment. Water movement in the lower reach is faster with little stagnation reducing the potential for sedimentation.

7.18 METALS IN SURFACE AND SUBSURFACE SOIL

- Nine TAL metals plus mercury were reported at concentrations greater than the Part 375 Unrestricted SCOs at surface soil sampling locations including arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Twenty-seven of the 31 surface soil sampling locations had concentrations of metals greater than their SCOs.
- Nine TAL metals and mercury were reported at concentrations greater than the Part 375 Unrestricted Soil Cleanup Objectives in subsurface soil including arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Sixteen of the 22 subsurface soil sampling locations had concentrations of metals greater than their SCOs.

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7.19 **METALS IN GROUNDWATER**

- Numerous metals were identified in both total and dissolved samples collected from this
 site. Metals identified in the samples include aluminum, antimony, arsenic, barium,
 calcium, chromium, copper, iron, magnesium, manganese, nickel, potassium, selenium,
 sodium, vanadium, and zinc.
- Antimony, iron, magnesium, manganese, selenium, and sodium were detected at concentrations greater than their Class GA AWQS.
- Iron, magnesium, manganese, and sodium were also detected during groundwater sampling conducted in support of the Town of Salina Landfill (CHA 2009). The CHA report suggested that concentrations of iron, magnesium, and manganese were potentially related to turbidity or possibly leachate indicators.
- Groundwater flow patterns and turbidity measurements indicate that the concentrations of
 these compounds at the Old Ley Creek Channel site are not likely the result of leachate
 impacts from the landfill or from elevated turbidity.

7.20 METALS IN SURFACE WATER

- Seven surface water samples were collected during the 14 January 2010 low-water surface water sampling event. Metals and mercury analysis of the samples collected during the low-water sampling indicates that concentrations (greater than the Class B A (C) standard) were identified at each of the sampling locations. The metals identified include aluminum, copper, and iron.
- Seven surface water samples were collected during the 26 January 2010 high-water surface water sampling event. Metals and mercury analysis of the samples collected during the low-water sampling indicates that concentrations (greater than the Class B A (C) standard) were identified at each of the sampling locations. The metals identified include aluminum and iron.
- Three surface water samples were collected during the 24 May 2010 sampling event. Metals and mercury analysis of the samples collected during this event indicates that concentrations of aluminum, chromium, cobalt, copper, iron, lead, mercury, nickel, silver, vanadium, and zinc are greater than the Class B A(C) surface water standard.

7.21 **METALS IN SEDIMENTS**

• Analytical results indicate that concentrations of metals greater than their respective lowest or severe effect levels were detected at each of the eight sediment sampling locations.

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- Lowest effect levels were exceeded at each sampling location for a combination of the following metals, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, silver, and zinc.
- Severe effect levels were exceeded at the following sampling locations SED-01, -02, -03, and -04. The severe effect levels were exceeded for chromium, copper, lead, nickel, silver, and zinc.
- The sediment samples were collected from locations from up to downstream in the Old Ley Creek Channel. Each of these metals was also detected in surrounding surface and subsurface soil sampling locations at concentrations greater than their respective SCGs.

7.22 CURRENT CONCEPTUAL SITE MODEL

A conceptual site model provides the framework for identifying and quantifying known and unknown chemicals of concern in the environment at a site. Based on the data collected during this RI, the previous investigations performed at the Town of Salina Landfill, the following narrative outlines the conceptual site model.

Several factors have resulted to impacts to environmental media at the Old Ley Creek Channel site. Historical land-filling activities from the 1950s through the 1970s at the Town of Salina Landfill are one of the potential sources of impacts to the area. Topographic and soil boring evidence places the landfill along the western bank of the old channel along its entire extent. Analytical results in groundwater collected on the Town of Salina Landfill parcel adjacent to the Old Ley Creek Channel site indicate that VOCs are impactsing groundwater from waste located in this area. Historically, there is documented disposal of hazardous waste from the General Motors Fisher Guide Division. The waste included paint sludge and waste paint thinner and reducer. Other wastes were also disposed of in the landfill resulting in releases of PCBs, heavy metals, and other organic compounds into the environment downgradient of the landfill. Soil, groundwater, surface water, and sediment have each been impacted.

Ley Creek drains a variety of different areas from its headwaters to Onondaga Lake including residential, rural, recreational, and industrial areas. The cumulative effect of activities in these areas and the migration of sediments and impacted surface water from upstream to downstream has likely resulted in impacts from a variety of activities. The analytical results collected during completion of this RI confirmed that soil, surface water, groundwater, and sediment have been impacted by disposal activities at the site and the migration of contaminants to the site through natural processes.

A third potential source of impacts is the SPS treatment system which discharges to the Old Ley Creek Channel. The design parameters of the system and the discharge permit requirements are unknown. However, analytical results suggest that the treatment system may be responsible for a portion of the impacts in environmental media at the site.

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Though additional confirmatory sampling may be required for surface water, the media sampling that has been conducted to date appears to be adequate for determining the nature and extent of impacts at the site. The focus of this investigation has been the extent of PCB impacts to soil and sediment in the area, the idea being that because of the extent of the PCB impacts (See figures 3-6 through 3-11), if the site is managed based on PCB impacts, the other contaminants in surface water, sediment, and groundwater will also be addressed.

7.23 RECOMMENDATIONS

7.23.1 Groundwater

- The impacts to groundwater at the site monitoring wells were limited with respect to VOCs, SVOCs, metals, pesticides, and PCBs. No additional groundwater sampling appears to be required. The monitoring wells should remain in place in order to be used for gauging purposes.
- The extent of groundwater impacts associated with the Town of Salina Landfill wells was notable for VOCs. Gauging at the landfill should include gauging of the Old Ley Creek Channel monitoring wells to further refine groundwater flow patterns in the area.

7.23.2 Surface Water

- PCBs were identified in surface water during two of the sampling rounds at concentrations greater than the surface water guidelines. Other contaminants, while present, were of a limited concern.
- Additional surface water sampling should be completed upstream of the site and included in the sampling for the landfill as well.

7.23.3 Soil

- PCBs were identified in site soils from the surface to several feet below grade, the highest concentrations being within the first 2 ft.
- There is unrestricted public access to the site. The exposure pathway for humans and wildlife is complete for surface soils. The analytical data suggests that an interim remedial measure (IRM) be conducted to remove highly impacted surface soil from the area, removing the potential for exposure to PCBs and other contaminants identified in the soil.
- Removing impacted soil through an IRM based on the extent of PCBs will also remove other contaminants limiting exposure to them as well.

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7.23.4 Sediment

- PCBs were identified in site sediment from the surface to 2 ft below grade.
- There is unrestricted public access to the site. The exposure pathway for humans and wildlife is complete for sediment. As noted above, the analytical data suggests that an IRM removing surface soil be conducted to remove highly impacted surface soil from the area. During completion of the IRM, it is recommended that sediment in the Old Ley Creek Channel also be excavated and treated or disposed of properly.
- To identify the extent of the impacted sediment, it is recommended that additional sediment samples be collected in the old channel.

7.24 PERFORM AN IRM

- Based on the site data collected during this RI, EA recommends that completion of an IRM with the intent of removing impacted soil and sediment from Old Ley Creek Channel site be completed.
- The IRM could potentially be completed in conjunction with the completion of excavation to place the fragment of the Town of Salina Landfill within the boundaries of the former landfill west of Ley Creek.
- It is assumed that do to the high concentrations of PCBs (greater than 50 mg/kg) in onsite soils and sediments, portions of the soil and sediment could not be placed within the boundaries of the former landfill and would have to be disposed of as hazardous waste.

8. REFERENCES

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TABLE 3-1 GROUNDWATER ELEVATION DATA

		10 N	MAY 2010			
Monitoring Well Identification	Ground Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Top of Riser Elevation (ft AMSL)	Depth to Groundwater (ft btoc)	Depth to Well Bottom (ft btoc)	Groundwater Table Elevation (ft AMSL)
OLC-MW-1	377.0	379.16	378.87	9.88	20.32	368.99
OLC-MW-1	374.8	377.07	376.86	6.21	20.30	370.65
OLC-MW-3	370.3	372.63	370.80	4.31	18.12	368.09
	374.09		377.19	10.44	20.50	366.75
MW-6		377.41 387.57		19.70		
MW-7	384.36		387.32		30.50	367.62
MW-13	368.6	370.93	370.58	6.11	15.21	364.47
MW-14	382.8	385.13	384.42	19.02	30.31	365.40
MW-15	382.3	384.63	384.21	15.83	25.26	368.38
MW-16	379.5	381.91	381.58	13.56	25.50	368.02
MW-17	371.5	375.35	374.73	8.25	17.54	366.48
MW-18	371.4	374.66	374.31	7.05	15.24	367.26
MW-19	368	371.39	370.89	3.98	14.75	366.91
		24 N	1AY 2010			
Monitoring Well Identification	Ground Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Top of Riser/Gauge Elevation (ft AMSL)	Depth to Groundwater (ft btoc)	Depth to Well Bottom (ft btoc)	Groundwater Table Elevation (ft AMSL)
OLC-MW-1	377.0	379.16	378.87	10.02	20.32	368.85
OLC-MW-2	374.8	377.07	376.86	6.73	20.30	370.13
OLC-MW-3	370.3	372.63	372.40	4.64	18.12	367.76
MW-6	374.09	377.41	377.19	13.07	20.50	364.12
MW-7	384.36	387.57	387.32	20.15	30.50	367.17
MW-13	368.6	370.93	370.58	6.47	15.21	364.11
MW-14	382.8	385.13	384.42	19.34	30.31	365.08
MW-15	382.3	384.63	384.21	16.81	25.26	367.40
MW-16	379.5	381.91	381.58	13.07	25.50	368.51
MW-17	371.5	375.35	374.73	9.40	17.54	365.33
MW-18	371.4	374.66	374.31	7.56	15.24	366.75
MW-19	368	371.39	370.89	4.27	14.75	366.62
SWE-1			366.48	2.64		363.84
SWE-2			368.64	1.85		366.79
SG-1			367.47	3.27		364.20
SG-2			365.85	2.56		363.29

NOTE: AMSL = Above mean sea level.

btoc = Below top of casing

Horizontal Datum New York State Plane LI 3104 1983/96

Vertical Datum NAVD 1988

TABLE 3-2 VOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-01					SB-03						SB-04				Part 375
	Sample Depth (ft)	4-8		8-12	12-14		4-8		8-12		12-14		4-8		8-12		12-14	1	Unrestricted Use
Parameter List	Sample Date			1/19/2010					1/19/201	0					1/19/2010)			Soil Cleanup
USEPA Method 8260	Sample Type			Composite					Composi	te					Composit	e			Objectives (ppm)
1,1-Dichloroethane	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	0.27
1,2,4-Trimethylbenzene	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	3.6
2-Butanone	mg/kg		U	U		U		UJ	0.022	J		UJ	0.02		NR		0.018		
4-Isopropyltoluene	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	
Acetone	mg/kg		U	U		U		UJ	0.1	J	0.021	J	0.079		NR		0.11		0.05
Carbon disulfide	mg/kg		U	U		U		UJ		UJ	0.0035	J		U	NR			U	
Chloroethane	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	
Chloroform	mg/kg		U	U		U		U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	0.25
Methylene chloride	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	0.05
Naphthalene	mg/kg	0.0088		U		U		UJ		UJ		UJ		U	NR			U	
Tetrachloroethene	mg/kg		U	U		U		UJ		UJ		UJ		U	NR			U	1.3
			U	U		U		U		U		U		U		IJ		U	0.7
Toluene	mg/kg		0																
	mg/kg		Ü	Ü	R.05	Ü		UJ	SR-05A	UJ		UJ	SR-05C	Ü	NR			U	0.02
Toluene Vinyl chloride	mg/kg Sample Location			U S	B-05		10.11		SB-05A		SB-05B	UJ	SB-05C		NR			U	Part 375
Vinyl chloride	mg/kg Sample Location Sample Depth (ft)	0-4		U S 4-8	8-12		12-14		SB-05A 2-4		SB-05B 2-4		SB-05C 2-4		NR			U	Part 375 Unrestricted Use
Vinyl chloride Parameter List	Sample Location Sample Depth (ft) Sample Date	0-4		S 4-8	8-12 9/2010		12-14				SB-05B 2-4 1/19/2010)			NR			U	Part 375 Unrestricted Use Soil Cleanup
Vinyl chloride Parameter List USEPA Method 8260	Sample Location Sample Depth (ft) Sample Date Sample Type	0-4	Ū	S 4-8 1/1 Coi	8-12	Ü	12-14	UJ			SB-05B 2-4)		Ü	NR			U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm
Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg		U	S 4-8 1/1 Con UJ	8-12 9/2010	U	12-14	UJ		U	SB-05B 2-4 1/19/2010) e		U	NR			U	Part 375 Unrestricted Ust Soil Cleanup Objectives (ppm
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	0.0015	U	S 4-8 1/1 Cor UJ UJ UJ	8-12 9/2010	UJ		UJ		U	SB-05B 2-4 1/19/2010	U U		U	NR			Ů	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg		U	S 4-8 1/1 Cor UJ UJ UJ UJ	8-12 9/2010	UJ	12-14	UJ		UUUUU	SB-05B 2-4 1/19/2010	U U		U U U U	NR			Ů	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg		1 1 1 0	S 4-8 1/1 Cor UJ UJ UJ UJ UJ	8-12 9/2010 mposite	U	0.014	UJ		U U U	SB-05B 2-4 1/19/2010	U U U		U U U U U	NR			Ů	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg			S 4-8 1/1 Coi UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010			UU		U U U U	SB-05B 2-4 1/19/2010	U U U U U		U U U U U	NR			Ü	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg			S 4-8 1/1 Con UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite	nn nn nn nn nn nn nn nn nn nn nn nn nn	0.014	UJ		U U U U U	SB-05B 2-4 1/19/2010	U U U U U U		U U U U U U U	NR			Ü	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05
Parameter List USEPA Method 8260 1.1-Dichloroethane 1.2.4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg			S 4-8 1/1 Con UJ	8-12 9/2010 mposite		0.014	UJ U U U U U U		U U U U U U U U	SB-05B 2-4 1/19/2010	U U U U U U U U		U U U U U U U	NR			Ü	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		0 0 0 0 0 0 0 0	S 4-8 1/1 Cor UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite	01 U U U U U U U U U U U U U U U U U U U	0.014	UJ U U U U U U U		U U U U U U	SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U		U U U U U U U U	NR			Ü	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05 0.37
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg		U U U U U U U U U U U U U U U U U U U	S 4-8 1/1 Con UJ	8-12 9/2010 mposite	01 01 01 01 01 01 01 01 01	0.014	UJ U U U U U U U U U U U U U			SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U U U U U U U U	NR			Ü	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05 0.37 0.25
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.0015	0 0 0 0 0 0 0 0	S 4-8 1/1 Coi UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite	U UJ UJ UJ UJ UJ UJ UJ UJ UJ UJ UJ UJ UJ	0.014	U U U U U U U U U U U U U U U U U U U			SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U	NR			Û	Part 375 Unrestricted Us Soil Cleanup Objectives (ppn 0.27 3.6 0.05 0.37 0.25 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg			S 4-8 1/1 Coi UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite		0.014				SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U	NR			Ü	Part 375 Unrestricted Us Soil Cleanup Objectives (ppm 0.27 3.6 0.05 0.37 0.25 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.0015		S 4-8 1/1 Con UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite	U U U U U U U U U U U U U U U U U U U	0.014	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U			NR			U	Part 375 Unrestricted Us Soil Cleanup Objectives (ppm 0.27 3.6 0.05 0.37 0.25 0.05 1.3
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.0015		S 4-8 1/1 Coi UJ UJ UJ UJ UJ UJ UJ UJ UJ U	8-12 9/2010 mposite		0.014				SB-05B 2-4 1/19/2010	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U	NR			U	Part 375 Unrestricted Uss Soil Cleanup Objectives (ppm 0.27 3.6 0.05 0.37 0.25 0.05

ppm = Parts per million.

mg/kg = Milligrams per kilogram.

U = Compound was analyzed for, but not detected.

= Estimated value. NR = No Recovery.

Bold values indicate exceedence of standard. Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

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TABLE 3-2 VOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-06						SB-07						SB-08				D . 275
	Sample Depth (ft)	4-8		8-12		12-14	-	4-8		8-12		12-14		4-8		8-12		12-1-	1	Part 375 Unrestricted Use
Parameter List	Sample Date	4-0		1/19/2010	n	12-14	-	4-0		1/18/201	0	12-14		4-0		1/18/201	n	12-1	•	Soil Cleanup
USEPA Method 8260	Sample Type			Composit						Composi						Composi				Objectives (ppm)
1,1-Dichloroethane	mg/kg		UJ		UJ		UJ		UJ	•	UJ		U		U		U		U	0.27
1,2,4-Trimethylbenzene	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	3.6
2-Butanone	mg/kg		UJ		UJ		UJ	0.053	J		UJ		U		U		U		U	
4-Isopropyltoluene	mg/kg		UJ		UJ	1	UJ		UJ		UJ		U		U		U		U	
Acetone	mg/kg	0.042	J		UJ		UJ	0.22	J	0.026	J	0.018		0.033		0.033		0.0085		0.05
Carbon disulfide	mg/kg		UJ		UJ		UJ		UJ	0.006	J	0.0046	J		U	0.0031	J	0.0014	J	
Chloroethane	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	
Chloroform	mg/kg		U	Ì	U	Ì	U		U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		UJ	Ì	UJ	Ì	UJ		UJ		UJ		U		U		U		U	0.25
Methylene chloride	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	0.05
Naphthalene	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	
Tetrachloroethene	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	1.3
Toluene	mg/kg		U		U		U		U		U		U		U		U		U	0.7
Totuette	mg/kg																			
Vinyl chloride	mg/kg		UJ		UJ		UJ		UJ		UJ		U		U		U		U	0.02
	mg/kg Sample Location		UJ	SB-09			UJ		UJ	SB-10	UJ		U		U	SB-11	U			Part 375
Vinyl chloride	mg/kg Sample Location Sample Depth (ft)	4-8	UJ	SB-09 8-12	UJ		UJ	4-8	UJ	8-12		12-14	U	4-8	U	8-12		12-1-		Part 375 Unrestricted Use
Vinyl chloride Parameter List	Sample Location Sample Depth (ft) Sample Date	4-8	UJ	SB-09 8-12 1/19/2010	UJ 0		UJ	4-8	UJ	8-12 1/18/201	0	12-14	U	4-8	U	8-12 1/18/201	0	12-1		Part 375 Unrestricted Use Soil Cleanup
Vinyl chloride Parameter List USEPA Method 8260	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8		SB-09 8-12 1/19/2010 Composit	UJ 0 te	12-14		4-8		8-12	0 te	12-14		4-8		8-12	0 te	12-1-	1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	UJ	SB-09 8-12 1/19/2010 Composit	UJ 0 te UJ	12-14	UJ	4-8	U	8-12 1/18/201	0 te U	12-14	U	4-8	U	8-12 1/18/201	0 te	12-1-	4 U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27
Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8	UJ	SB-09 8-12 1/19/2010 Composit	UJ 0 te UJ UJ	12-14	UJ			8-12 1/18/201	0 te U U	12-14	U	4-8	U	8-12 1/18/201 Composi	0 te	12-1-	4 U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	4-8	UJ	SB-09 8-12 1/19/2010 Composit	UJ 0 te UJ UJ UJ	12-14	UJ UJ UJ	0.055	U	8-12 1/18/201	0 te U U U U	12-14	UUUUU	4-8	U U U	8-12 1/18/201	0 tte U U	12-1-	4 U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg		UJ UJ UJ	SB-09 8-12 1/19/2010 Composit	UJ O te UJ UJ UJ UJ UJ	12-14	UJ UJ UJ	0.055	U	8-12 1/18/201 Composit	0 te U U		U	4-8	U U U	8-12 1/18/201 Composi 0.032	0 te		4 U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	0.012	nı nı nı nı	SB-09 8-12 1/19/2010 Composit	UJ O te UJ UJ UJ UJ UJ UJ	12-14	UJ UJ UJ UJ		UUU	8-12 1/18/201 Composit	0 te U U U U	0.0065	U U U	4-8	U U U U	8-12 1/18/201 Composi	0 tte U U U	0.0071	1 U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1.1-Dichloroethane 1.2.4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		1 1 01 01 01 01	SB-09 8-12 1/19/2010 Composit	O te UJ UJ UJ UJ UJ UJ UJ	12-14	UJ UJ UJ UJ UJ UJ	0.055	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/201 Composit	0 U U U U U U U U U U U U U U U U U U U		1 0 0 0	4-8	U U U U U	8-12 1/18/201 Composi 0.032	0 tte U U U U		4 U U U U J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1.1-Dichloroethane 1.2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.012	1 1 01 01 01 01	SB-09 8-12 1/19/2014 Composit	UJ O te UJ UJ UJ UJ UJ UJ UJ UJ UJ U	12-14	UJ UJ UJ UJ UJ UJ UJ UJ	0.055	U U U U U U	8-12 1/18/201 Composit	0 te U U U U U U U U U U U U U U U U U U	0.0065	U U U U	4-8	U U U U U	8-12 1/18/201 Composi 0.032	0 te U U U U U	0.0071	1 U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-09 8-12 1/19/2014 Composit	UJ O te UJ	12-14	UJ U	0.055	U U U U U U U U	8-12 1/18/201 Composit	0 te U U U U U U U U	0.0065	1 U U U	4-8	U U U U U U	8-12 1/18/201 Composi 0.032	O tte U U U U U U U U U	0.0071	1 U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	01 01 01 1 01 01 01 01	SB-09 8-12 1/19/2010 Composit	UJ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12-14	UJ U	0.055	U U U U U U U U	8-12 1/18/201 Composit	0 te U U U U U U U U U	0.0065			U U U U U U U	8-12 1/18/201 Composi 0.032 0.13	O te U U U U U U U U U U U	0.0071	4 U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25
Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	01 01 01 01 01 01 01 01 01 01	SB-09 8-12 1/19/2010 Composit	UJ 00 tete UJ	12-14	UJ U	0.055	U U U U U U U U U U U	8-12 1/18/201 Composit	0 te U U U U U U U U U U U U	0.0065	U U U U U U U U U U U U U U U U U U U	0.0026	U U U U U U U U	8-12 1/18/201 Composi 0.032	O te U U U U U U BJ	0.0071	4 U U U U U U U BJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	01 01 01 01 01 1 01 01 01 01	SB-09 8-12 1/19/2010 Composit	UJ 00 tee UJ	12-14	UJ U	0.055	U U U U U U U U U U U U U U	8-12 1/18/201 Composit	0 UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0065	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U U U	8-12 1/18/201 Composi 0.032 0.13	O te U U U U U BJ U	0.0071	1 U U U U U BJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05
Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	01 01 01 01 01 01 01 01 01 01	SB-09 8-12 1/19/2014 Composit	UJ 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12-14	UJ U	0.055	U U U U U U U U U U U U U U U	8-12 1/18/201 Composit	0 UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0065	U U U U U U U U U U U U U U U	0.0026	U U U U U U U U U U U U U U	8-12 1/18/201 Composi 0.032 0.13	0 tte U U U U U U U U U U U U U U U U U U	0.0071	1 U U U U U BJ U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05 1.3
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.012	01 01 01 01 01 1 01 01 01 01	SB-09 8-12 1/19/2010 Composit	UJ 00 tee UJ	12-14	UJ U	0.055	U U U U U U U U U U U U U U	8-12 1/18/201 Composit	0 UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0065	U U U U U U U U U U U U U U U U U U U	0.0026	U U U U U U U U U U U U	8-12 1/18/201 Composi 0.032 0.13	O te U U U U U BJ U	0.0071	1 U U U U U BJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05

Old Ley Creek Channel Site (7-34-074) Remedial Investigation Report

TABLE 3-2 VOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-12	2					SB-13						SB-14				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-24		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/18/20	10	•				1/18/2010)					1/18/201	0			Soil Cleanup
USEPA Method 8260	Sample Type			Compos	site					Composite	е					Composit	te			Objectives (ppm)
1,1-Dichloroethane	mg/kg		U		U		U		UJ		UJ		U		U		U		U	0.27
1,2,4-Trimethylbenzene	mg/kg		U		U		U		UJ		UJ		U		U		U		U	3.6
2-Butanone	mg/kg		U		U		U		UJ		UJ		U		U		U		U	
4-Isopropyltoluene	mg/kg		U		U		U		UJ		UJ		U		U		U		U	
Acetone	mg/kg		U	25		0.038		0.05	J		UJ	0.0068	J	0.028		0.065		0.0064		0.05
Carbon disulfide	mg/kg		U		U		U		UJ		UJ	0.0059	J	0.0019	J	0.0087	J		U	
Chloroethane	mg/kg		U		U		U		UJ		UJ		U		U		U		U	
Chloroform	mg/kg		U		U		U		U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U		U		U		UJ		UJ		U		U		U		U	0.25
Methylene chloride	mg/kg		U		U		U		UJ		UJ		U		U		U		U	0.05
Naphthalene	mg/kg	6.900			U		U		UJ		UJ		U	0.0058		0.0035	J		U	
Tetrachloroethene	mg/kg		U		U		U		UJ		UJ		U		U		U		U	1.3
1 chacinorocuiciic													U		T.T.		U		U	0.7
Toluene	mg/kg		U		U		U		U		U		U		U		U		U	0.7
	mg/kg mg/kg		U		U		U		U		UJ		U		U		U		U	0.02
Toluene													-							
Toluene													-							
Toluene	mg/kg Sample Location			SB-1:	U					SB-16			-			SB-17			U	
Toluene	Sample Location Sample Depth (ft)	4-8		8-12	U	12-14		4-8		8-12	UJ	12-14	-	4-8		8-12	Ū	12-14	U	0.02
Toluene	Sample Location Sample Depth (ft) Sample Date	4-8		8-12 1/18/20	U 10	12-14		4-8		8-12 1/18/2010	UJ UJ	12-14	-	4-8		8-12 1/19/201	0	12-14	U	0.02 Part 375
Toluene Vinyl chloride	Sample Location Sample Depth (ft)	4-8		8-12	U 10	12-14		4-8		8-12	UJ)	12-14	-	4-8		8-12	0	12-14	U	0.02 Part 375 Unrestricted Use
Toluene Vinyl chloride Parameter List	Sample Location Sample Depth (ft) Sample Date	4-8	U	8-12 1/18/20	U 10	12-14		4-8		8-12 1/18/2010	UJ)	12-14	-	4-8		8-12 1/19/201	0	12-14	U	0.02 Part 375 Unrestricted Use Soil Cleanup
Toluene Vinyl chloride Parameter List USEPA Method 8260	sample Location Sample Depth (ft) Sample Date Sample Type	4-8	U	8-12 1/18/20	U 10 site	12-14	U	4-8	UJ	8-12 1/18/2010	UJ)		-	4-8	Ü	8-12 1/19/201	U 0 te	12-14	U	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U	8-12 1/18/20 Compos	U Site U	12-14	U	4-8	UJ	8-12 1/18/2010	UJ) e		U	4-8	U	8-12 1/19/201	U U ee U	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8	U	8-12 1/18/20 Compos 0.0034	U Site U	12-14	U		UJ	8-12 1/18/2010	UJ U U U U		U	4-8	U	8-12 1/19/201	0 te U	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichlorothane 1,2,4-Trimethylbenzene 2-Butanone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	4-8	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/20 Compos 0.0034	U 10 site U J	12-14	UUUUUUUU		U	8-12 1/18/2010	UJ O U U U	0.028	U	4-8	U U U U	8-12 1/19/201	0 te U U U	0.0068	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg		U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	U 10 site U J		UUUUUUUU	0.017	U	8-12 1/18/2010 Composite	UJ O U U U	0.028	U	4-8	U U U U U	8-12 1/19/201 Composit	0 te U U U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	10 site U J U		U U U U	0.017	U	8-12 1/18/2010 Composite	UJ O U U U	0.028	U U U U	4-8	U U U U U	8-12 1/19/201 Composit 0.021	0 te U U U	0.0068	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	10 Site U U U U		U U U U U	0.017	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/2010 Composite	UJ U	0.028 0.0086 0.004	U U U U	4-8	U U U U U U	8-12 1/19/201 Composit 0.021	0 tee U U U U J	0.0068	1 0 0 0	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	10 Site U U U U U		U U U U U U U	0.017	UJ U U	8-12 1/18/2010 Composite	1 0 0 0	0.028 0.0086 0.004	J U U	4-8	U U U U U U U U	8-12 1/19/201 Composit 0.021	0 te U U U U U U U U U U U U U U U U U U	0.0068	U U U U U U U U U U U U U U U U U U U	O.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) O.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	10 site U U U U U U		U U U U U U U U U	0.017	UJ U	8-12 1/18/2010 Composite	1 1 0 0 1 0 1 0	0.028 0.0086 0.004	П П П П	4-8	U U U U U U U	8-12 1/19/201 Composit 0.021		0.0068	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37
Parameter List USEPA Method 8260 1,1-Dichlorothane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.019	U U U U U U U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	To site U U U U U U U U U U	0.026	U U U U U U U U U U	0.017 0.11	UJ U U U U U U U U	8-12 1/18/2010 Composite 0.035 0.0031	UJ U U U U U U U U U U U U U U U U U U	0.028 0.0086 0.004	1 1 1 0 1 0	4-8	U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.021		0.0068		0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.019	U U U U U U U BJ	8-12 1/18/20 Compos 0.0034 0.0075	To site U U U U U U U BJ	0.026	U U U U U U U U U	0.017 0.11	UJ U U U U U U U U U BJ	8-12 1/18/2010 Composite 0.035 0.0031	UJ U U U U U U BJ	0.028 0.0086 0.004	1 1 1 1 0 1 0	4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.021	U 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0068	1 U U U U U U U U U U U U U U U U U U U	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.019	U U U U U U U U U U U U U U U U U U U	8-12 1/18/20 Compos 0.0034 0.0075	TO Siste U U U U U U U BJ U	0.026	U U U U U U U U U U U	0.017 0.11	UJ U U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite 0.035 0.0031	UJ U U U U U U U U U U U U U U U U U U	0.028 0.0086 0.004	1 0 0 1 1 0 0 0 0	4-8		8-12 1/19/201 Composit 0.021	U U U U U U U U U U U U U U	0.0068		0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05 0.05

	Sample Location			SB-18	3					SB-19						SB-20				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		0-4		4-8		8-12		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/19/2010						1/19/2010	0					1/19/201	0			Soil Cleanup
USEPA Method 8260	Sample Type			Composite						Composit	e					Composi	te			Objectives (ppm)
1,1-Dichloroethane	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	0.27
1,2,4-Trimethylbenzene	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	3.6
2-Butanone	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	
4-Isopropyltoluene	mg/kg	NR		0.019		0.02	J		U		U		UJ		UJ		UJ		UJ	
Acetone	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	0.05
Carbon disulfide	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	
Chloroethane	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	
Chloroform	mg/kg	NR			U		U		U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg	NR		0.0024	J	0.015	J		U		U		UJ		UJ	0.013	J		UJ	0.25
Methylene chloride	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	0.05
Naphthalene	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	
Tetrachloroethene	mg/kg	NR			U		UJ		U		U		UJ		UJ		UJ		UJ	1.3
1 CH aCHIOLOGUICHE	mg/kg																			
Toluene	mg/kg	NR			U		U		U		U		U		U		U		U	0.7
				0.0025	U J	0.011	U J		U		U		U UJ		U UJ		U UJ		U	0.7 0.02
Toluene	mg/kg	NR		0.0025		0.011														
Toluene	mg/kg	NR		0.0025		0.011														
Toluene	mg/kg mg/kg Sample Location	NR NR		0.0025 MW-0	J					MW-02						MW-03	UJ			
Toluene	mg/kg mg/kg	NR		MW-0 6-10	J 1	0.011		2-6		6-10	Ü	10-14		2-6		6-10	UJ	10-14	UJ	0.02
Toluene	mg/kg mg/kg Sample Location	NR NR		MW-0	J 1			2-6			Ü	10-14		2-6			UJ	10-14	UJ	0.02 Part 375
Toluene Vinyl chloride	mg/kg mg/kg Sample Location Sample Depth (ft)	NR NR		MW-0 6-10	J 1			2-6		6-10	Ū O	10-14		2-6		6-10	0	10-14	UJ	0.02 Part 375 Unrestricted Use
Toluene Vinyl chloride Parameter List	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date	NR NR	Ŭ	MW-0 6-10 4/27/20	J 1			2-6		6-10 4/26/2010	Ū O	10-14		2-6		6-10 4/26/201	0	10-14	UJ	0.02 Part 375 Unrestricted Use Soil Cleanup
Toluene Vinyl chloride Parameter List USEPA Method 8260	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type	NR NR	U	MW-0 6-10 4/27/20	1 10 site		J	2-6	Ü	6-10 4/26/2010	U O e	10-14	Ū	2-6	UJ	6-10 4/26/201	UJ 0 te	10-14	UJ	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR		MW-0 6-10 4/27/20	1 10 site U		J	2-6	U	6-10 4/26/2010	U U	10-14	UJ	2-6	UJ	6-10 4/26/201	0 tte U	0.0043	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	NR NR	U	MW-0 6-10 4/27/20	1 10 site U U	10-14	J	2-6	U	6-10 4/26/2010 Composit	U U	10-14	UJ	2-6	UJ	6-10 4/26/201 Composi	0 tte U		UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1.1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	NR NR	U	MW-0 6-10 4/27/20	1 10 site U U	10-14	J	2-6	U	6-10 4/26/2010 Composit	U U	10-14	UJ	0.0057	UJ	6-10 4/26/201 Composi	0 tte U		UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene	sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	NR NR	U	MW-0 6-10 4/27/20	10 site U U U	0.009	J	2-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-10 4/26/2010 Composit 0.0066	U U	10-14	UJ		U U U	6-10 4/26/201 Composi 0.036	0 tte U	0.0043	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR	U U U	MW-0 6-10 4/27/20	10 site U U U	0.009	n n	2-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-10 4/26/2010 Composit 0.0066	U U U U	10-14	UJ U U U U U U U U U U U U U U U U U U		U U U	6-10 4/26/201 Composi 0.036	0 tte U	0.0043	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide	sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR	U U U	MW-0 6-10 4/27/20	10 site U U U U U U	0.009	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0014	U U U U U U	6-10 4/26/2010 Composit 0.0066	0 e U U U U U U	0.004	U U U U U U U U U U U U U U U U U U U		n n n	6-10 4/26/201 Composi 0.036	0 tte U	0.0043	UJ UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR	U U U U U	MW-0 6-10 4/27/20 Compos	10 Site U U U U U U	0.009	U U U		U U U U U U U	6-10 4/26/2010 Composit 0.0066 0.021	0 e U U U U		U U U U U U U U U U U U U U U U U U U	0.0057	UJ U U	6-10 4/26/201 Composi 0.036 0.11 0.005	O tte U U U U U U	0.0043 0.022 0.011	1 U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05
Parameter List USEPA Method 8260 1.1-Dichloroethane 1.2.4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR	U U U U U U	MW-0 6-10 4/27/20 Compos	10 site U U U U U U J J	0.009	1 U			6-10 4/26/2010 Composit 0.0066 0.021	0 ee U U U U J		UJ U U U U U U U BJ	0.0057	1 1 1 1 1 1 1	6-10 4/26/201 Composi 0.036 0.11 0.005	0 te U U U U U U U U U U U U U U U U U U	0.0043 0.022 0.011	1 0 1 0 0	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37
Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR	U U U	MW-0 6-10 4/27/20 Compos	11 10 site U U U U U U U U U U U U U U U U U U U	0.009	n n n n		1 0 0 0 0 0 0	6-10 4/26/2010 Composit 0.0066 0.021	00 ee U U U U U U U U U U U U U U U U U		UJ U U U U U U U U U U U U U U U U U U	0.0057	UJ U U U U U U U U U U U U U U U U U U	6-10 4/26/201 Composi 0.036 0.11 0.005	O tte U U U U U U U U U U U U U U U U U U	0.0043 0.022 0.011	1 0 1 0 0 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride	mg/kg mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Type mg/kg	NR NR	U U U	MW-0 6-10 4/27/20 Compos	11	0.009	1 U U U U U U U U U U U U U U U U U U U		1 0 0 0 0 0 0	6-10 4/26/2010 Composit 0.0066 0.021	0 e U U U U U U U U U U U U U U U U U U		UJ	0.0057	7 0 0 0 0 0 0 0 0 0	6-10 4/26/201 Composi 0.036 0.11 0.005	O tte U U U U U U U U	0.0043 0.022 0.011	1 U U U U U U U U U U U U U U U U U U U	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05
Toluene Vinyl chloride Parameter List USEPA Method 8260 1,1-Dichloroethane 1,2,4-Trimethylbenzene 2-Butanone 4-Isopropyltoluene Acetone Carbon disulfide Chloroethane Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	mg/kg mg/kg mg/kg mg/kg Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR 2-6	U U U U U U U U U U U U U	MW-0 6-10 4/27/20 Compos 0.0021	10	0.009 0.029 0.0016		0.0014	U U U U U U U U U U U U U U U U U U U	6-10 4/26/2010 Composit 0.0066 0.021	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		UJ	0.0057	7 0 1 0 0 0 0 0	6-10 4/26/201 Composi 0.036 0.11 0.005	0 tte U U U U U U U U U U U	0.0043 0.022 0.011 0.002	1 0 1 0 1 0	0.02 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.27 3.6 0.05 0.37 0.25 0.05

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TABLE 3-2 VOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

				TABLE 3-2 VC	LATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL	
		SB-DUP	01	SB-DUP02		
	Sample Location	SB-15		SB-05		
	Sample Depth (ft)	12-14		0-4		Uı
Parameter List	Sample Date	1/18/201	0	1/19/2010		
USEPA Method 8260	Sample Type	Composi	ite	Composite		Ob
,1-Dichloroethane	mg/kg		UJ	U		
1,2,4-Trimethylbenzene	mg/kg		UJ	U		
2-Butanone	mg/kg	0.0092	J	U		
1-Isopropyltoluene	mg/kg		UJ	U		
Acetone	mg/kg	0.051	J	U		
Carbon disulfide	mg/kg	0.004	J	U		
Chloroethane	mg/kg		UJ	U		
cis-1,2-Dichloroethene	mg/kg		UJ	U		
Methylene chloride	mg/kg		UJ	U		
Naphthalene	mg/kg		UJ	0.18		
Tetrachloroethene	mg/kg		UJ	U		
Vinyl chloride	mg/kg		UJ	U		

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TABLE 3-3 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-01					SB-03					SB-04				i
	Sample Depth (ft)	4-8		8-12		12-14	4-8		8-12	12	-14	4-8		8-12		12-14		Part 375
	Sample Date			1/19/2010					1/19/2010					1/19/201	0			Unrestricted Use
Parameter List USEPA Method 8270	Sample Type			Composite					Composite					Composi	te			Soil Cleanup Objectives (ppm
2-Methylnaphthalene	mg/kg	0.75		I	T	U		U	U		U	0.093	I	NR		I	U	Objectives (ppin
4-Methylphenol	mg/kg	0.053	ī	ī	_	II.		U	U		U	0.073	II	NR			U	
Acenaphthene	mg/kg	1.8	,	ī	_	U		U	U		U	0.14	I	NR			U	20
Acenaphthylene	mg/kg	1.9	-	ī	_	U	0.05	J	U		U	0.63	Ť	NR			U	100
Anthracene	mg/kg	4.3		ī	J	U		U	U		U	0.74		NR		0.065	J	100
Benzo(a)anthracene	mg/kg	7.4	D	I	J	U	0.11	J	U		U	1.1	1	NR		0.13	J	1.0
Benzo(a)pyrene	mg/kg	4.8		I.	J	U	0.099	J	U		U	1.5		NR		0.15	J	1.0
Benzo(b)fluoranthene	mg/kg	6.5	D	I	J	U	0.12	J	U		U	2.1		NR		0.2	J	1.0
Benzo(g,h,i)perylene	mg/kg	2.6		I	J	U	0.083	J	U		U	1.1		NR		0.11	J	100
Benzo(k)fluoranthene	mg/kg	2.2		U	J	U	0.052	J	U		U	0.8		NR		0.082	J	0.80
Bis(2-ethylhexyl)phthalate	mg/kg	0.12	J	τ	J	U		U	U		U	1		NR		0.99		
Butylbenzylphthalate	mg/kg		U	U	J	U		U	U		U		U		U		U	
Carbazole	mg/kg	1.3		U	J	U		U	U		U	0.16	J	NR			U	
Chrysene	mg/kg	5.5		I	J	U	0.13	J	U		U	1.7		NR		0.16	J	1.0
Dibenzo(a,h)anthracene	mg/kg	0.99		I	J	U		U	U		U	0.41	J	NR			U	0.33
Dibenzofuran	mg/kg	1.5		U	J	U		U	U		U	0.07	J	NR			U	
Di-n-butylphthalate	mg/kg		U	U	J	U		U	U		U		U	NR			U	
Fluoranthene	mg/kg	17	D	U	J	U	0.16	J	U		U	2.4		NR		0.28	J	100
Fluorene	mg/kg	3.2		I	J	U		U	U		U	0.17	J	NR			U	30
Indeno(1,2,3-cd)pyrene	mg/kg	2.6		U	J	U	0.067	J	U		U	1.2		NR		0.12	J	0.50
Naphthalene	mg/kg	0.93		U	J	U		U	U		U		U	NR			U	12
Phenanthrene	mg/kg	16	D	U		U	0.091	J	U		U	1.1		NR		0.14	J	100
Pyrene	mg/kg	12	D	U	J	U	0.19	J	U	1	U	2.5	1	NR		0.27	J	100

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.

U = Compound was analyzed for, but not detected.

J = Estimated value.

NR = No Recovery.

 $D \hspace{1cm} = \hbox{Dilution of sample or extract}.$

Bold values indicate exceedence of standard.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

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TABLE 3-3 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location				S	B-05				SB-05A		SB-05B		SB-05C	$_$				Part 375
	Sample Depth (ft)	0-4		4-8		8-12		12-14		2-4		2-4		2-4					Unrestricted Use
Parameter List	Sample Date				1/1	9/2010						1/19/2010)						Soil Cleanup
USEPA Method 8270	Sample Type				Cor	nposite						Composite	е						Objectives (ppm)
2-Methylnaphthalene	mg/kg	0.83		0.038	J		U		U	0.067	J		U		U				
4-Methylphenol	mg/kg	0.082	J		U		U	0.062	J		U		U		U				
Acenaphthene	mg/kg	0.33	J	0.056	J		U		U	0.079	J		U		U				20
Acenaphthylene	mg/kg	2.1		0.31	J	0.11	J		U	0.31	J	0.12	J	0.17	J				100
Anthracene	mg/kg	2.9		0.41		0.091	J	0.055	J	0.3	J	0.11	J	0.16	J				100
Benzo(a)anthracene	mg/kg	4.6		1.1		0.38	J	0.12	J	0.81		0.3	J	0.42					1.0
Benzo(a)pyrene	mg/kg	3.4		0.86		0.36	J	0.089	J	0.81		0.31	J	0.42					1.0
Benzo(b)fluoranthene	mg/kg	4		0.98		0.48		0.15	J	0.98		0.41		0.54					1.0
Benzo(g,h,i)perylene	mg/kg	2		0.58		0.27	J	0.071	J	0.59		0.23	J	0.31	J				100
Benzo(k)fluoranthene	mg/kg	1.9		0.62		0.2	J	0.067	J	0.57		0.19	J	0.27	J				0.80
Bis(2-ethylhexyl)phthalate	mg/kg		U		U		U		U		U		U		U				
Butylbenzylphthalate	mg/kg		U		U		U		U		U		U		U				
Carbazole	mg/kg	0.79		0.095	J	0.045	J		U		U		U		U				
Chrysene	mg/kg	4.1		1.1		0.39	J	0.16	J	0.85	1	0.34	J	0.46					1.0
Dibenzo(a,h)anthracene	mg/kg	0.74		0.18	J	0.068	J		U	0.19	J	İ	U	0.096	J				0.33
Dibenzofuran	mg/kg	0.99		0.05	J		U		U	0.086	J		U		U				
Di-n-butylphthalate	mg/kg		U		U		U		U		U		U		U				
Fluoranthene	mg/kg	11	D	2		0.82		0.23	J	1.4		0.46		0.72					100
Fluorene	mg/kg	1.9		0.13	J		U		U	0.11	J		U		U				30
Indeno(1,2,3-cd)pyrene	mg/kg	2		0.51		0.23	J	0.065	J	0.56		0.22	J	0.29	J				0.50
					U		U		U		U		U		U				12
Naphthalene	mg/kg	1.1																	
Naphthalene Phenanthrene	mg/kg mg/kg	1.1 9.6	D	1.1	Ŭ	0.34	J	0.13	J	0.67		0.21	J	0.31	J				100
	mg/kg mg/kg mg/kg Sample Location	9.6 8.6	D D	1.1 1.9 SB-0e		0.34 0.68	J	0.13 0.25	l	0.67 1.2 SB-07		0.21 0.44	J	0.31	J	SB-08			100 100
Phenanthrene Pyrene	mg/kg mg/kg Sample Location Sample Depth (ft)	9.6		SB-06 8-12	6		J			SB-07 8-12	0		J		J	8-12	12-14	1	100 Part 375 Unrestricted Use
Phenanthrene Pyrene Parameter List	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date	9.6 8.6		SB-06 8-12 1/19/20	6	0.68	J	0.25		SB-07 8-12 1/18/201		0.44	1	0.7	J	8-12 1/18/2010	12-14	1	Part 375 Unrestricted Use Soil Cleanup
Phenanthrene Pyrene Parameter List USEPA Method 8270	mg/kg mg/kg Sample Location Sample Depth (fi) Sample Date Sample Type	9.6 8.6	D	SB-06 8-12	6 010 site	0.68		0.25	J	SB-07 8-12	te	0.44		0.7		8-12 1/18/2010 Composite	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6	D	SB-06 8-12 1/19/20	6 010 site U	0.68	U	0.25	J	SB-07 8-12 1/18/201	te U	0.44	U	0.7	U	8-12 1/18/2010 Composite U	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	9.6 8.6	U	SB-06 8-12 1/19/20	6 010 site U	0.68	U	0.25	U	SB-07 8-12 1/18/201	U U	0.44	U	0.7	U	8-12 1/18/2010 Composite U	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Accnaphthene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	9.6 8.6	U U U	SB-06 8-12 1/19/20	6 010 ssite U U U	0.68	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.25	U U	SB-07 8-12 1/18/201	U U U	0.44	ט ט	0.7	U U U	8-12 1/18/2010 Composite U U U	12-14	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	9.6 8.6	U U U	SB-06 8-12 1/19/20	6 010 site U U U U	0.68	U U U U U	0.25	1 0 0	SB-07 8-12 1/18/201	U U U	0.44	U U U	0.7	U U U U	8-12 1/18/2010 Composite U U U	12-14	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	9.6 8.6 4-8		SB-06 8-12 1/19/20	6010 site U U U U	0.68	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.25 4-8 0.11 0.2	1 0 0 0	SB-07 8-12 1/18/201	U U U U	0.44	U U U U	0.7	U U U U	8-12 1/18/2010 Composite U U U U	12-14	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene	mg/kg mg/kg sample Location Sample Depth (ft) Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	9.6 8.6 4-8 0.045 0.18	1 0 0 0 0	SB-06 8-12 1/19/20	6 010 ssite U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36	1 1 1 0 0	SB-07 8-12 1/18/201	U U U U U U	0.44	и и и и	0.7	U U U U U	8-12 1/18/2010 Composite U U U U U	12-14	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylanphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)pyrene Benzo(a)pyrene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18	1 1 1 0 0 1 0	SB-06 8-12 1/19/20	6 U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36	1 1 1 1 1 0 1	SB-07 8-12 1/18/201	U U U U U U U	0.44	и и и и и и	0.7	U U U U U U U U U	8-12 1/18/2010 Composite U U U U U U	12-14	U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)droanthene	mg/kg mg/kg Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16	1 1 1 0 U	SB-06 8-12 1/19/20	6 010 site U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46	1 1 1 1 1 1 0 1 1	SB-07 8-12 1/18/201	U U U U U U U	0.44	U U U U U U	0.7	U U U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite U U U U U U U	12-14	U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(g),i)perylene Benzo(g),i)perylene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085	1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20	66 U10 U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25	1 1 1 1 1 1 1 0 1 1 1 1 1 0 1	SB-07 8-12 1/18/201	U U U U U U U U U U U U	0.44		0.7	U U U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14	U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 100
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylanphthalene 4-Methylphenol Acenaphthene Acenaphthene Benzo(a)anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16	1 1 1 1 1 1 1 0 1 1 0 1 1 0 1 1 1 1 1 1	SB-06 8-12 1/19/20	010	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46	1 1 1 1 1 1 1 1 1 1 0 1 1 0 1 1 1 1 1 1	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7	U U U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)apyrene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085	1 1 1 1 1 1 1 1 1 0 1 1 0 1 0 1 1 0 1 0	SB-06 8-12 1/19/20	010 010 0 U 0 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085	1 1 1 1 1 1 1 1 1 1 1 0 1 0 1 0 1 0 1 0	SB-06 8-12 1/19/20	010	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25	1 U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7	U U U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylanphthalene 4-Methylphenol Acenaphthene Acenaphthene Acenaphthene Benzo(a)mthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)theoranthene Benzo(c)theoranthene Benzo(c)theoranthene Benzo(c)theoranthene Benzo(c)theoranthene Benzo(c)thuranthene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	1 U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	6 010 0 site U U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.46 0.25 0.19	1 U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene	mg/kg mg/kg Sample Location Sample Depth (ft) Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085	1 0 1 1 1 1 1 1 1 0 0 0 0 0	SB-06 8-12 1/19/20	010 site U U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25 0.19	1 U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(a)fluoranthene Benzo(a)fluoranthene Benzo(a)fluoranthene Benzo(a)fluoranthene Benzo(a)fluoranthene Benzo(a)fluoranthene Carbazole Chrysene Dibenzo(a,h)anthracene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	1 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0	SB-06 8-12 1/19/20	6 010 0 site U U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.46 0.25 0.19	1 0 0 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-12		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 100 100 1.0 1.0 1.0 1.0 0.80 1.0 0.33
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Bis(2-ethylbexyl)phthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	mg/kg mg/kg mg/kg Sample Location Sample Depth (fi) Sample Depth (fi) Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	1 0 1 1 1 1 1 1 1 0 0 0 0 0	SB-06 8-12 1/19/20	010 site U U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25 0.19	1 0 0 1 1 1 1 1 1 1 1 0 0 0	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Bis(2-ethylhexylphthalate Butylbenzylphthalate Dibenzo(ah)anthracene Dibenzo(ah-)anthracene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 4-8 0.045 0.18 0.14 0.16 0.085 0.11	U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	66 010 site U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25 0.19 0.45 0.065	U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Benzo(b)perylene Bis(2-ethylbexyl)phthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	0 U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	66 010 site U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.36 0.46 0.25 0.19	U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		100 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Biv(2-ethylhex)plpthalate Carbazole Chrysene Dibenzofuran Di-n-butylpthhalate Phoranthene Fluoranthene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	66 U10 Site U U U U U U U U U U U U U U U U U U U	0.68		0.25 4-8 0.11 0.2 0.36 0.46 0.25 0.19 0.45 0.065	1 U U U U U U U U U U U U U U U U U U U	SB-07 8-12 1/18/201	U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		100 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 0.80 1.0 0.33 1.0 0.33
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexylphthalate Butylbenzylphthalate Dibenzo(a,h)anthracene Dibenzofuran Dibenzofuran Dib-n-butylphthalate Fluoranthene Fluoranthene Fluoranthene Indeno(1,2,3-cd)pyrene Indeno(1,2,3-cd)pyrene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 4-8 0.045 0.18 0.14 0.16 0.085 0.11	U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	010 siste	0.68		0.25 4-8 0.11 0.2 0.36 0.46 0.25 0.19 0.45 0.065	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Phenanthrene Pyrene Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Biv(2-ethylhex)plpthalate Carbazole Chrysene Dibenzofuran Di-n-butylpthhalate Phoranthene Fluoranthene	mg/kg mg/kg mg/kg Sample Location Sample Depth (ft) Sample Depth (ft) Sample Type mg/kg	9.6 8.6 4-8 0.045 0.18 0.14 0.16 0.085 0.11	1 U U U U U U U U U U U U U U U U U U U	SB-06 8-12 1/19/20	66 100 100 100 100 100 100 100	0.68		0.25 4-8 0.11 0.2 0.36 0.46 0.25 0.19 0.45 0.065	1 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.44		0.7		8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

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TABLE 3-3 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-09	9					SB-10					SB-11				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12	12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/19/20	10					1/18/2010					1/18/201	0			Soil Cleanup
USEPA Method 8270	Sample Type			Compos	site					Composite					Composi	te			Objectives (ppm)
2-Methylnaphthalene	mg/kg		U	•	U		U		U	· U		U		U	•	U		U	
4-Methylphenol	mg/kg		U		U		U		U	U		U		U		U		U	
Acenaphthene	mg/kg	1	U		U		U		U	U		U		U		U		U	20
Acenaphthylene	mg/kg	1	U	0.21	J		U	0.12	I	U		U	0.23	I		U		U	100
Anthracene	mg/kg	1	U	0.19	J		U	0.12	J	U		U	0.26	J		U		U	100
Benzo(a)anthracene	mg/kg	1	U	0.46			U	0.18	J	U		U	0.62	Ť		U		U	1.0
Benzo(a)pyrene	mg/kg	1	U	0.55	_	0.07	J	0.18	J	U		U	1.4	-		U		U	1.0
Benzo(b)fluoranthene	mg/kg	1	U	0.66		0.072	J	0.18	J	U		U	1.7	_		U		U	1.0
Benzo(g.h.i)pervlene	mg/kg	1	U	0.45		0.072	J	0.18	J	U		U	1.1	_		U		U	100
Benzo(k)fluoranthene	mg/kg	1	U	0.43	J	0.008	U	0.18	J	U		U	0.85	_		U		U	0.80
	- 0	ļ	U	0.51	U		U	0.12	J	U		U	0.05	U		U		U	0.80
Bis(2-ethylhexyl)phthalate	mg/kg							0.28		-								,	
Butylbenzylphthalate	mg/kg	 	U	0.045	U		U		U	U		U	0.11	U		U		U	
Carbazole	mg/kg	ļ	U	0.065	J		U	0.00	U	U		U	0.11	J		U		U	
Chrysene	mg/kg	ļ	U	0.56			U	0.22	J	U		U	0.95	Ļ		U	—	U	1.0
Dibenzo(a,h)anthracene	mg/kg	ļ	U	0.13	J		U		U	U		U	0.36	J		U	—	U	0.33
Dibenzofuran	mg/kg	ļ	U		U		U		U	U		U		U		U		U	
Di-n-butylphthalate	mg/kg		U		U		U		U	U		U		U		U		U	
Fluoranthene	mg/kg		U	0.95		0.069	J	0.36	J	U		U	1.3			U		U	100
Fluorene	mg/kg		U	0.069	J		U		U	U		U	0.073	J		U		U	30
Indeno(1,2,3-cd)pyrene	mg/kg		U	0.38	J	0.054	J	0.19	J	U		U	1.2			U		U	0.50
Naphthalene	mg/kg		U		U		U		U	U		U		U		U		U	12
Phenanthrene	mg/kg		U	0.54			U	0.16	J	U		U	0.6			U		U	100
Pyrene	mg/kg		U	0.82		0.078	J	0.34	J	U		U	1.3			U		U	100
					_	01010	<u> </u>	0.51	,	Ü						_			
			1 - 1					0.51										Ü	
								0.51										-	
	Sample Location		1 ~ 1	SB-12	2					SB-13					SB-14				Part 375
	Sample Location Sample Depth (ft)	4-8		SB-12 8-12		12-14		4-8		SB-13 8-12	12-24		4-8		8-12		12-14		Unrestricted Use
SVOC Parameter List	Sample Location Sample Depth (ft) Sample Date	4-8		SB-12 8-12 1/18/20	10					SB-13 8-12 1/18/2010	12-24				8-12 1/18/201	0	12-14		Unrestricted Use Soil Cleanup
SVOC Parameter List USEPA Method 8270	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8		SB-12 8-12	10					SB-13 8-12	12-24				8-12	0	12-14		Unrestricted Use
USEPA Method 8270 2-Methylnaphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U	SB-12 8-12 1/18/20	10 site		U		U	SB-13 8-12 1/18/2010 Composite	12-24	U	4-8	U	8-12 1/18/201	0 te	12-14	U	Unrestricted Use Soil Cleanup
USEPA Method 8270	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8	U	SB-12 8-12 1/18/20	10 site					SB-13 8-12 1/18/2010 Composite	12-24	U		J	8-12 1/18/201 Composi	0 te	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U	SB-12 8-12 1/18/20	10 site		U		U	SB-13 8-12 1/18/2010 Composite	12-24	U	4-8	J U	8-12 1/18/201	0 te	12-14	U	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8	U	SB-12 8-12 1/18/20 Compos	o10 site U		U		U	SB-13 8-12 1/18/2010 Composite U	12-24	U	4-8	J	8-12 1/18/201 Composi	0 te U	12-14	U U	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg mg/kg mg/kg	4-8	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	SB-12 8-12 1/18/20 Compos	o10 site U U J		U U U		U U U	SB-13 8-12 1/18/2010 Composite U U	12-24	U	4-8	J U	8-12 1/18/201 Composi	0 te U U J	12-14	U U	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg		U U U	SB-12 8-12 1/18/20 Compos 0.077 0.22	site U U J		U U U		U U U	SB-13 8-12 1/18/2010 Composite U U U U	12-24	U U U	4-8 0.09	J U U	8-12 1/18/201 Composi	0 tte U U J U	12-14	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.054	1 0 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25	site U U J	12-14	U U U		U U U U	SB-13 8-12 1/18/2010 Composite U U U U	12-24	U U U	0.09	J U U J	8-12 1/18/201 Composi 67	0 te U J U J	12-14	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.054 0.17	1 0 0 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54	site U U J	12-14	1 0 0 0 0		U U U U	SB-13 8-12 1/18/2010 Composite U U U U	12-24	U U U U	0.09 0.042 0.13	J U U J	8-12 1/18/201 Composi 67 0.15 0.47	0 te U U J U J J J J J	12-14	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.054 0.17 0.16	1 1 U U	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53	site U U J	12-14	1 1 0 0 0 0		U U U U U U U U U	SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U	12-24	U U U U U	0.09 0.042 0.13 0.13	J U U J J	8-12 1/18/201 Composi 67 0.15 0.47 0.4	0 tte U U J J J J J J J	12-14	U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 1.0 1.0
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)amthracene Benzo(a)pyrene Benzo(b)Hooranthene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.054 0.17 0.16 0.2	1 1 1 1 0 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78	site U U J	12-14	1 1 1 0 0 0			SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U	12-24	U U U U U U	0.09 0.042 0.13 0.13 0.15	J U U J J J	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52	0 te U U J J J J	12-14	U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)partnacene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11	1 1 1 1 1 0 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78	olio site U U J J	12-14	1 1 1 0 0 0 0			SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093	J U U J J J J	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3	0 te U U J J J J	12-14	U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 100
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)amthracene Benzo(a)apyrene Benzo(b)Houramthene Benzo(b,Houramthene Benzo(b,Houramthene Benzo(b,Houramthene Bis(2-ethylhexyl)phthalate	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11	1 1 1 1 1 U	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78	olio site U U J J J J	0.06 0.056				SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093	J U U J J J J	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3	0 tte U U J J J J J J J J J J J J	12-14	U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Butylenzylphthalate Butylbenzylphthalate	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11	1 1 1 1 1 1 1 1 1 0 0 1 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78	J J J U	0.06 0.056	1 0 0 1 1 1 0 0 0			SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093	U U J J J J U	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3	0 U U J J J J J	12-14	U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)ptluoranthene Benzo(b)ptluoranthene Benzo(b)ptluoranthene Benzo(c)c-ethylnevylphthalate Butylbenzylphthalate Carbazole	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1	10 U U U U U U U U U U U U U U U U U U U	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78 0.43	J J J U U U	12-14 0.06 0.056	1 U U U U U U U U U U U U U U U U U U U			SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093 0.081	J U U J J J J U U	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 U U J J J U U U	12-14	U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Chrysene	Sample Location Sample Depth (fi) Sample Depth (fi) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11	1 0 0 1 1 1 1 1 1 1 0 0 0 0	SB-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78 0.43 0.29	ilo site U J J J J U U U U U U U U U U	0.06 0.056	1 U U U U U U U U U U U U U U U U U U U			SB-13	12-24	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.09 0.042 0.13 0.13 0.15 0.093	J U U J J J U U U	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3	0 te U U J J J U U U U J J	12-14		Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
USEPA Method 8270 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthylene Anthracene Benzo(a)apytene Benzo(a)apytene Benzo(b)fluoranthene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1	1 0 0 0 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0	SB-12 8-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78 0.43	U	12-14 0.06 0.056				SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.09 0.042 0.13 0.13 0.15 0.093 0.081	1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1	1 U U U U U U U U U U U U U U U U U U U	SB-12 1/18/20 Compos 0.077 0.22 0.25 0.54 0.53 0.78 0.43 0.29	JUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	12-14 0.06 0.056				SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093 0.081	10 U U U U U U U U U U U U U U U U U U U	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 3.80 1.0 3.33
USEPA Method 8270 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Benzo(c)fluoranthene Dibenzo(c)fluoranthene Dibenzo(Sample Location Sample Depth (fi) Sample Date Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1	U U U U U U U U U U U U U U U U U U U	SB-12 8-18-12 1/18/20 Compos 0.077 0.25 0.25 0.54 0.53 0.78 0.43 0.29	U	0.06 0.056 0.33				SB-13	12-24		0.09 0.042 0.13 0.13 0.15 0.093 0.081	0 U U U U U U U U U U U U U U U U U U U	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)prene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene Bis(2-ethylhexyl)phthalate Butybenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Di-n-butylphthalate Fluoranthene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1		SB-1: 8-18-20 1-18-20	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	12-14 0.06 0.056				SB-13 8-12 1/18-2010 Composite U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	0.09 0.042 0.13 0.13 0.15 0.093 0.081	1 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g)hilperylene Benzo(b)fluoranthene Bist/2-ethylhexyl)phthalate Bist/2-ethylhexyl)phthalate Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1 0.18	1 U U U U U U U U U U U U U U U U U U U	SB-12 8-12 1/18/20 Compose 0.077 0.22 0.25 0.54 0.53 0.43 0.29	In the state of th	0.06 0.056 0.33				SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U U	12-24		0.09 0.042 0.13 0.13 0.15 0.093 0.081	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8-12 1/18/2011 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(g,h,i)perylene	Sample Location Sample Depth (fi) Sample Depth (fi) Sample Date Sample Type mg/kg 0.054 0.17 0.16 0.2 0.11 0.1	U U U U U U U U U U U U U U U U U U U	SB-1: 8-18-20 1-18-20	10	0.06 0.056 0.33				SB-13	12-24		0.09 0.042 0.13 0.13 0.15 0.093 0.081	1 0 1 0 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)	
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Di-n-butylphthalate Fluoranthene Fluorene Indeno(1,2,3-ed)pyrene Naphthalene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	0.054 0.17 0.16 0.2 0.11 0.1 0.18	1 U U U U U U U U U U U U U U U U U U U	SB-1: 8-18-20 Compos 0.077 0.22 0.25 0.54 0.64 0.14 1.2 0.067 0.37	In the state of th	0.06 0.056 0.33	U			SB-13 8-12 1/18/2010 Composite U U U U U U U U U U U U U U U U U U	12-24		0.09 0.042 0.13 0.15 0.093 0.091	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8-12 1/18/201 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 0.80 1.0 0.33 100 30 0.50
USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(g,h,i)perylene	Sample Location Sample Depth (fi) Sample Depth (fi) Sample Date Sample Type mg/kg 0.054 0.17 0.16 0.2 0.11 0.1 0.18	U U U U U U U U U U U U U U U U U U U	SB-12 8-12 1/18/20 Compose 0.077 0.22 0.25 0.54 0.53 0.43 0.29	10	0.06 0.056 0.33				SB-13	12-24		0.09 0.042 0.13 0.13 0.15 0.093 0.081	1 0 1 0 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1	8-12 1/18/2011 Composi 67 0.15 0.47 0.4 0.52 0.3 0.23	0 te U U U U U U U U U U U U U U U U U U	12-14		Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 0.80 1.0 0.33 10 30 0.50	

			TA	ABLE 3-3 SI	EMIV	OLATILE O	RGA.	NIC COMPO	UND	DETECTIONS II	N SUBSURFA	CE	SOIL						1
	Sample Location			SB-1:	5					SB-16					SB-17				D . 275
	Sample Depth (ft)	4-8		8-12	,	12-14		4-8		8-12	12-14	_	4-8		8-12	1	2-14		Part 375 Unrestricted Use
Parameter List	Sample Depth (it)	4-0		1/18/20	10	12-14		4=0		1/18/2010	12-14	_	4-0		1/19/2010		2=14		Soil Cleanup
USEPA Method 8270	Sample Type	1		Compos						Composite					Composite				Objectives (ppm)
2-Methylnaphthalene	mg/kg	1	U	0.073	J	1	U		U	U	1	U	1	U	U	1	_	U	
4-Methylphenol		1	U	0.073	U		U		U	U		U		U	U	-		U	
	mg/kg mg/kg	1	U	0.094	J		U		U	U		U		U	U	-		U	20
Acenaphthene Acenaphthylene	mg/kg	0.14	J	0.094	J		U		U	U		U		U	U		-	U	100
Anthracene	mg/kg	0.14	J	0.31	J		U		U	U		U		U	U			U	100
Benzo(a)anthracene	mg/kg	0.18	J	0.4	J	0.071	J		U	U		U		U	U			U	1.0
Benzo(a)pyrene	mg/kg	0.48	+	0.81		0.071	J		U	U		U		U	U			U	1.0
Benzo(b)fluoranthene	mg/kg	0.34	+	1.1	-	0.072	J		U	U		U		U	U		-	U	1.0
Benzo(g,h,i)perylene	mg/kg	0.7	+	0.66	-	0.11	J		U	U		U		U	U		-	U	100
Benzo(k)fluoranthene	mg/kg	0.29	J	0.46	-	0.064	U		U	U		U		U	U		-	U	0.80
Bis(2-ethylhexyl)phthalate	mg/kg	0.29	J	1.4			U		U	0.16 J		U		U	U			U	0.80
Butylbenzylphthalate	mg/kg	0.57	U	1.4	U		U		U	U U		U		U	U			U	
Carbazole	mg/kg	1	U	0.13	I		U		U	U		U		U	U	1		U	
Chrysene	mg/kg	0.54	U	0.13	,	0.092	J		U	U		U		U	U	 		U	1.0
Dibenzo(a,h)anthracene	mg/kg	0.34	J	0.87	J	0.072	U		U	U		U		U	U	1		U	0.33
Dibenzofuran	mg/kg	0.14	U	0.089	J		U		U	U		U		U	U			U	0.55
Di-n-butylphthalate	mg/kg	 	U	0.089	J		U		U	U		U		U	U	 		U	
Fluoranthene	mg/kg	0.9	U	1.6	J	0.16	I	0.074	I	U		U	0.064	J	U	 		U	100
Fluorene	mg/kg	0.054	J	0.16	ī	0.10	U	0.074	U	U		U		U	U			U	30
Indeno(1,2,3-cd)pyrene	mg/kg	0.49	,	0.16	,	0.066	J		U	U		U		U	U	 		U	0.50
Naphthalene	mg/kg	0.49	U	0.00	U	0.000	U		U	U		U		U	U	 		U	12
Phenanthrene	mg/kg	0.54	U	0.98	U	0.089	J		U	U		U		U	U		-	U	100
Pyrene							,		U	U	1	U		U					100
r yreac	mg/kg	0.72		1.2		0.14	J	0.07	J	U		U	0.067	J	U			U	100
. ,,,,,,	Sample Location Sample Depth (ft)	0.72		SB-13 8-12	8	0.14	J	0.07	J	SB-19 4-8	8-12	U	0.067	J	SB-20 8-12		2-14	U	Part 375
Parameter List	Sample Location			SB-1	8		J		J	SB-19		U		J	SB-20		2-14	U	
	Sample Location Sample Depth (ft)			SB-13 8-12			J		J	SB-19 4-8		U		J	SB-20 8-12		2-14	U	Part 375 Unrestricted Use
Parameter List	Sample Location Sample Depth (ft) Sample Date			SB-13 8-12 1/19/2010			I I		J	SB-19 4-8 1/19/2010	8-12	U	4-8	J	SB-20 8-12 1/19/2010		2-14	U	Part 375 Unrestricted Use Soil Cleanup
Parameter List USEPA Method 8270	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8		SB-13 8-12 1/19/2010						SB-19 4-8 1/19/2010 Composite	8-12		4-8		SB-20 8-12 1/19/2010 Composite		2-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylnaphthalene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 NR		SB-13 8-12 1/19/2010	U		U		U	SB-19 4-8 1/19/2010 Composite	8-12	U	4-8	U	SB-20 8-12 1/19/2010 Composite	0.02		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylanphthalene 4-Methylphenol	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8 NR NR		SB-13 8-12 1/19/2010	U		U		U	SB-19 4-8 1/19/2010 Composite U	8-12	U	4-8	U	SB-20 8-12 1/19/2010 Composite U		54	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4-8 NR NR NR NR NR		SB-13 8-12 1/19/2010	U U U U		U U U U U U	0-4		SB-19 4-8 1/19/2010 Composite U U U U U U U U U	8-12	U U U U	4-8	U U U U	SB-20 8-12 1/19/2010 Composite U U U U	0.03 0.5 0.4	54 3 9	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4-8 NR NR NR NR NR		SB-13 8-12 1/19/2010	U U U U		U U U U U U U U	0-4 0.065 0.092	1 0 0 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U	8-12	U U U U U	4-8	U U U U	SB-20 8-12 1/19/2010 Composite U U U U	0.03 0.5 0.4 0.6	54 3 9	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0
Parameter List USEPA Method 8270 2-Methylpaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	A-8 NR NR NR NR NR NR NR		SB-13 8-12 1/19/2010	U U U U U			0.065 0.092 0.11	1 1 0 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U	0.03 0.5 0.4 0.6 0.7	54 3 9 1	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)apyrene Benzo(a)pyrene Benzo(b)fluoranthene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	A-8 NR NR NR NR NR NR NR NR		SB-13 8-12 1/19/2010	U U U U U U			0.4 0.065 0.092 0.11 0.13	1 1 1 1 0 1 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9	54 3 9 1 1 6	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)aphracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b,hl)perylene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	A-8 NR NR NR NR NR NR NR NR		SB-13 8-12 1/19/2010	U U U U U U U			0.4 0.065 0.092 0.11 0.13 0.098	1 1 1 1 1 0 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9	54 3 9 1 1 6 4	J U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0
Parameter List USEPA Method 8270 2-Methylpaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b,i)perylene Benzo(b,i)perylene Benzo(b,i)duoranthene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13	1 1 1 1 1 1 0 1 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.02 0.5 0.4 0.6 0.7 0.9 0.6 0.3	54 3 9 1 1 1 6 4	1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylbexyl)phthalate	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	4-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13 0.098	1 1 1 1 1 1 1 1 0 0	SB-19 4-8 1/1/9/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9	54 3 9 1 1 1 6 4	1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Bis(2-ethylhexyl)phthalate	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13 0.098	1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2	54 3 9 1 1 1 6 4 9	1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)pryene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Burylbenzylphthalate Carbazole	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.44 0.065 0.092 0.11 0.13 0.098 0.078	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/1/9/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	\$B-20 \$-12 1/19/2010 Composite U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2	54 3 9 1 1 1 6 4 9 7	1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	4-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13 0.098	1 0 0 1 1 1 1 1 1 0 0 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2	54 3 9 1 1 6 4 4 9 7	1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 1.
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	MR NR		SB-13 8-12 1/19/2010				0.44 0.065 0.092 0.11 0.13 0.098 0.078	1 0 0 1 1 1 1 1 1 1 0 0 0 0	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8	U U U U U U U U U U U U U U U U U U U	SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.6 0.7 0.9 0.6 0.3 0.2	54 3 9 1 1 6 4 4 9 7 7	1 D 1 1 D 1 D	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 1.0 1.0 1.0 0.80 1.0 0.33
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylbexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	A+8 NR		SB-13 8-12 1/19/2010				0.44 0.065 0.092 0.11 0.13 0.098 0.078	U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/1/9/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8		\$B-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2	54 3 9 1 1 6 4 4 9 7 7	1 1 1 1 1 1 0	Part 375 Unestricted Use Solic Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthene Benzo(a)aptrene Benzo(a)aptrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene Benzo(b)fluoranthene Benzo(c)fluoranthene Dibenzofuran Dibenzofuran Dibenzofuran Dibenzofuran	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	MR NR		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13 0.098 0.078	0 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8		SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2 0.1 0.1 0.8	3 9 1 1 1 6 4 4 9 9 7 7 3 3 8 8 8 8 8 8 5 1 1	1 D 1 1 D 1 D	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 1.0 1.0 1.0 1.0 1.0 0.80 1.0 0.80 1.0 0.33
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(k)fluoranthene Bist/2-ethylhexylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Di-n-butylphthalate Fluoranthene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	MR NR		SB-13 8-12 1/19/2010				0.44 0.065 0.092 0.11 0.13 0.098 0.078	0 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/1/9/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U U U U U U U U U U U	4-8		SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2 0.1 0.8 0.1	3 9 1 1 1 6 6 4 9 9 7 7 3 3 8 8 8 8 8 5 1 5 5	1 1 1 1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Bis(2-ethylbexylphthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg A-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.065 0.092 0.11 0.13 0.098 0.078	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		\$B-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2 0.1 0.8 0.1 0.03	3 9 1 1 1 1 6 6 4 4 9 9 7 7 3 8 8 8 8 8 8 8 8 5 5 1 5 5 3 3	1 1 1 1 1 1 0	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 1.0 1.0 1.0 1.0 1.0 0.80 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)horranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhex)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(an)anthracene Dibenzo(an)anthracene Dibenzo(an)anthracene Fluoranthene Fluoranthene Fluorantene Indeno(1,2,3-cd)pyrene Indeno(1,2,3-cd)pyrene	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	HE NE		SB-13 8-12 1/19/2010				0.4 0.065 0.092 0.11 0.13 0.098 0.078	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2 0.1 0.8 0.1	3 9 1 1 1 1 6 6 4 4 9 9 7 7 3 8 8 8 8 8 8 8 8 5 5 1 5 5 3 3	1 1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 0.80 1.0 0.33 100 30 0.50
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Benzo(a)amtracene Benzo(a)amtracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a)anthracene	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	A-8 NR NR NR NR NR NR NR NR NR N		SB-13 8-12 1/19/2010				0.065 0.092 0.11 0.13 0.098 0.078	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/1/9/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		\$B-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U	0.00 0.55 0.44 0.66 0.33 0.22 0.11 0.88 0.10 0.10 0.10 0.10 0.10 0.10	54 3 3 9 1 1 1 1 6 6 4 4 9 9 7 7 7 3 8 8 8 8 8 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8270 2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)horranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhex)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(an)anthracene Dibenzo(an)anthracene Dibenzo(an)anthracene Fluoranthene Fluoranthene Fluorantene Indeno(1,2,3-cd)pyrene Indeno(1,2,3-cd)pyrene	Sample Location Sample Depth (fi) Sample Date Sample Type mg/kg	HE NE		SB-13 8-12 1/19/2010				0.065 0.092 0.11 0.13 0.098 0.078	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		SB-20 8-12 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	0.03 0.5 0.4 0.6 0.7 0.9 0.6 0.3 0.2 0.1 0.8 0.1 0.03	3 3 9 9 1 1 1 1 6 6 4 4 9 9 7 7 3 3 8 8 8 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9	1 1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 20 100 1.0 1.0 1.0 0.80 1.0 0.33 1.0 0.33 1.0 0.33

Remedial Investigation Report

	Sample Location			MW-01						MW-02	2					MW-0:	3			Part 375
	Sample Depth (ft)	2-6		6-10		10-14		2-6		6-10		10-14		2-6		6-10		10-14		Unrestricted Use
Parameter List	Sample Date			4/27/2010						4/26/201						4/26/20				Soil Cleanup
USEPA Method 8270	Sample Type			Composite						Composi						Compos				Objectives (ppm)
2-Methylnaphthalene	mg/kg		U		U		U		U		U		U		U		U		U	
4-Methylphenol	mg/kg		U		U		U		U		U		U		U		U		U	
Acenaphthene	mg/kg		U		U		U		U		U		U		U		U		U	20
Acenaphthylene	mg/kg		U		U	0.083	J	0.067	J	0.055	J		U	0.13	J		U		U	100
Anthracene	mg/kg		U		U	0.099	J	0.07	J	0.1	J		U	0.15	J		U		U	100
Benzo(a)anthracene	mg/kg	0.044	J		U	0.32	J	0.22	J	0.37	J		U	0.41	J	0.095	J		U	1.0
Benzo(a)pyrene	mg/kg		U		U	0.3	J	0.24	J	0.26	J		U	0.41	J	0.074	J		U	1.0
Benzo(b)fluoranthene	mg/kg		U		U	0.22	J	0.18	J	0.27	J		U	0.54		0.11	J		U	1.0
Benzo(g,h,i)perylene	mg/kg		U		U	0.14	J	0.12	J	0.14	J		U	0.3	J	0.061	J		U	100
Benzo(k)fluoranthene	mg/kg		U		U	0.32	J	0.19	J	0.19	J		U	0.23	J		U		U	0.80
Bis(2-ethylhexyl)phthalate	mg/kg		U		U	0.24	J	0.3	J	1.3	+		U	0.23	J	0.34	J	0.15	J	
Butylbenzylphthalate	mg/kg	ļ	U		U		U	0.066	J		U		U	0.04	U		U		U	***
Carbazole	mg/kg		U		U		U		U		U		U	0.06	J		U		U	
Chrysene	mg/kg	0.04	J		U	0.33	J	0.26	J	0.34	J		U	0.54	.	0.11	J		U	1.0
Dibenzo(a,h)anthracene	mg/kg		U		U		U		U		U		U	0.071	J		U		U	0.33
Dibenzofuran	mg/kg		U		U	0.52		0.33	J	0.56	1	0.057	J	0.82	L.	0.16	J		U	
Di-n-butylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Fluoranthene	mg/kg		U		U		U		U		U		U		U		U		U	100
Fluorene	mg/kg		U		U		U		U		U		U		U		U		U	30
Indeno(1,2,3-cd)pyrene	mg/kg		U		U	0.17	J	0.13	J	0.15	J		U	0.31	J	0.061	J		U	0.50
Naphthalene	mg/kg		U		U		U		U		U		U		U		U		U	12
Phenanthrene	mg/kg		U		U	0.3	J	0	J	0	J		U	0	J	0	J		U	
Pyrene	mg/kg		U		U	0.6		0	J	1		0	J	1		0	J		U	
	T	SB-DUP	11	SB-DUP02	\neg															
	Sample Location	SB-15	,1	SB-05																D . 077
	Sample Depth (ft)	12-14		0-4	ᅱ															Part 375
Parameter List																				
Parameter List	Sample Date		0																	Unrestricted Use
LICEDA Mada J 9270	Sample Date	1/18/201		1/19/2010	=															Soil Cleanup
USEPA Method 8270	Sample Type	1/18/201 Composi	te	1/19/2010 Composite																Soil Cleanup Objectives (ppm)
2-Methylnaphthalene	Sample Type mg/kg	1/18/201	te J	1/19/2010 Composite 0.61	т															Soil Cleanup Objectives (ppm)
2-Methylnaphthalene 4-Methylphenol	Sample Type mg/kg mg/kg	1/18/201 Composi 0.043	te J U	1/19/2010 Composite 0.61 0.076	J															Soil Cleanup Objectives (ppm)
2-Methylnaphthalene 4-Methylphenol Acenaphthene	Sample Type mg/kg mg/kg mg/kg	1/18/201 Composi 0.043	J U J	1/19/2010 Composite 0.61 0.076 0.22	J J															Soil Cleanup Objectives (ppm)
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene	Sample Type mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi 0.043 0.06 0.16	te J U J	1/19/2010 Composite 0.61 0.076 0.22 1.8	_															Soil Cleanup Objectives (ppm) 20 100
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25	J U J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3	_															Soil Cleanup Objectives (ppm) 20 100 100
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55	te J U J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3	_															Soil Cleanup Objectives (ppm) 20 100 100 1.0
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49	te J U J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2	_															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68	J U J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9	_															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0
2-Methylnaphthalene 4-Methylphenol Accenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b,h)perylene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68	U J J J J J J J J J J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8	_															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0
2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b,h)perylene Benzo(b,h)duoranthene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37	J U J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8	J															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 0.80
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)yrene Benzo(b)fluoranthene Benzo(g)hilperylene Benzo(k)thoranthene Bis(2-ethylhexyl)phthalate	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68	te U J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8	J															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)nthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67	U J J J J J J J J J J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8	J															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 0.80
2-Methylnaphthalene 4-Methylphenol Acenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g)h.jlperylene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.68 0.37 0.28 0.67	te U J J J J J U U U U U U U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8	J															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Benzo(b)flooranthene Carbazole Carbazole Carbazole Chrysene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67	te U J J J J J U U U U U U U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8	J															Soil Cleanup Objectives (ppm)
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)pyrene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h)pyrene Benzo(g,h)pyrene Benzo(g,h)pyrene Benzo(g,h)phylnathene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67	te J J J J J J J J J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 1.8 0.55 0.68	J															Soil Cleanup Obiectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0 0.33
2-Methylnaphthalene 4-Methylphenol Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Benzo(b,fluoranthene Bis(2-ethylhexyl)phthalate Carbazole Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzo(a,h)anthracene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67	U J J J J J J J J J J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 3.5 0.68	J															Soil Cleanup Obiectives (ppm)
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)apyrene Benzo(b)fluoranthene Bis(2-ethylhexylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Di-n-butylphthalate	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67 0.055 0.52 0.089 0.05	U J J J J J J J J J J J J J J J J J J J	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 0.68 0.76	U U															Soil Cleanup Obiectives (ppm) 20 100 100 1.0 1.0 1.0 1.0 1.0 1.0 0.80
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthylene Acenaphthylene Acenaphthylene Anthracene Benzo(a)pyrene Benzo(b)fflooranthene Benzo(s)flooranthene Benzo(s)flooranthene Benzo(s)flooranthene Benzo(s)flooranthene Bis(2-ethylhexyl)phthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Di-n-butylphthalate Fluoranthene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.69 0.055 0.49 0.055	U J J J J J J J J U J U J U J U J U J U U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 3.5 0.68 0.76	n n															Soil Cleanup Obiectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0 0.33 100 100
2-Methylnaphthalene 4-Methylphenol A-Menhylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)hornene Benzo(b)hornathene Benzo(b,hi)perylene B	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67 0.055 0.52 0.089 0.05 0.12 1.2	U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 3.5 0.68 0.76	U U															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0 0.33 1.0 0.33
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthylene Benzo(a)aptracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofuran Dibenzofuran Dib-n-butylphthalate Fluoranthene Fluoranthene Fluorene Indeno(1,2,3-ed)pyrene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.69 0.055 0.49 0.055	U J J J J J J J J U J U J U J U J U J U U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 0.68 0.76	U															Soil Cleanup Obiectives (ppm)
2-Methylnaphthalene 4-Methylphenol A-Cenaphthene Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(c,h,i)perylene Benzo(b)fluoranthene Benzo(c,h,i)perylene Benzo(c,h,i)perylene Benzo(c,h,i)perylene Benzo(c,h,i)perylene Benzo(c,h,i)nutracene Dibenzo(c,h,i)nutracene Dibenzo(c,h,i)anthracene Dibenzo(furan Di-n-butylphthalate Fluoranthene Fluoranthene	Sample Type mg/kg	1/18/201 Composi 0.043 0.06 0.16 0.25 0.55 0.49 0.68 0.37 0.28 0.67 0.055 0.52 0.089 0.05 0.12 1.2	U	1/19/2010 Composite 0.61 0.076 0.22 1.8 2.3 4 3.2 3.9 1.8 1.8 0.55 3.5 0.68 0.76	U															Soil Cleanup Objectives (ppm) 20 100 100 1.0 1.0 1.0 0.80 1.0 0.33 1.0 0.33

Remedial Investigation Report

	Sample Location			SB-01						SB-03						SB-04				
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Part 375
	Sample Date			1/19/20	10					1/19/201	.0					1/19/20	10			Unrestricted Use
Parameter List																				Soil Cleanup
	Sample Type			Compos	ite					Composi	te					Compos	ite			Objectives (ppm)
Aluminum	mg/kg	2940	J	1140	J	2660	J	7800	J	10400	J	9460	J	7590	J	NR		7000	J	
Antimony	mg/kg		UJ		UJ		UJ		J	0.34	J	0.45	J		UJ	NR			UJ	
Arsenic	mg/kg	3		3.1		2.3		3.1		3.2		8.9		14.3	J	NR		4.4	J	13
Barium	mg/kg	24.4	J	11.3	J	41.6	J	109	J	161	J	58.9	J	139	J	NR		78.7	J	350
Beryllium	mg/kg	0.14	J	0.074	J	0.14	BJ	0.31	J	0.24	J	0.42	J	0.53	J	NR		0.38	J	7.2
Cadmium	mg/kg	0.054	J		UJ		UJ	0.13	J		UJ		UJ	7.3		NR		0.54		2.5
Calcium	mg/kg	176000		297000		175000		3620		3290		3440		36300	J	NR		9060	J	
Chromium	mg/kg	12	J	2.8	J	5.1	J	133	J	21.1	J	16.5	J	1230	J	NR		34.1	J	30
Cobalt	mg/kg	2.4	J	0.71	J	4	J	4.5	J	3.5	J	11	J	8.7	J	NR		6	J	
Copper	mg/kg	16.4	J	2.6	J	17	J	52	J	21.6	J	16.5	J	1020	J	NR		52.5	J	50
Iron	mg/kg	6940		2340		7660		11400		11200		32100		24800	J	NR		21400	J	
Lead	mg/kg	14.5	J	2.2	J	3	J	15.7	J	9.7	J	7.7	J	171	J	NR		18.3	J	63
Magnesium	mg/kg	33800	J	11000	J	16800	J	2780	J	2410	J	4500	J	11000	J	NR		3740	J	
Manganese	mg/kg	186	J	58.7	J	311	J	120	J	86.1	J	158	J	356	J	NR		269	J	1,600
Mercury	mg/kg	0.007		0.0067	В	0.012	В	0.084		0.091		0.034		0.28		NR		0.19		0.18
Nickel	mg/kg	8.7	J	2.8	J	9.1	J	71.3	J	12	J	19.4	J	445	J	NR		18.1	J	30
Potassium	mg/kg	700		631		800		641		710		1110		716		NR		449		
Selenium	mg/kg		U		U		U	1.3		1.2		1.8			U	NR		1.4		3.9
Silver	mg/kg		U		U		U		U		U		U	4	J	NR		0.35	J	2.0
Sodium	mg/kg	162		129		165		42.2		72.2		90.4		80.5		NR		43.1		
Thallium	mg/kg	2.6		3.1		2.5		0.34		0.49		0.48		1.3		NR		0.65		
Vanadium	mg/kg	6.5	J	2.7	J	5.7	J	15.7	J	20	J	24.7	J	20.4	J	NR		18	J	
Zinc	mg/kg	21.1	J	6.2	J	13.2	J	63.7	J	32	J	48.9	J	497	J	NR		62.1	J	109

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.

mg/kg = Milligrams per kilogram.

J = Less than Contract Required Quantitation Limit, but greater than or equivalent to the Method Detection Limit.

NR = No Recovery

U = Less than Method Detection Limit.

= Analyte found in asociated method blank, as well as sample.

Bold values indicate exceedence of standard.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

	Sample Location				CD	-05				SB-05A		SB-05E	•	SB-050	,					D
	Sample Depth (ft)	0-4		4-8	SD	8-12		12-14		2-4	4	2-4)	2-4	_					Part 375
	Sample Depth (ft) Sample Date	0-4		4-8	1/10	/2010		12-14		2-4		1/19/201	0	2-4						Unrestricted Use
Parameter List	Sample Date Sample Type											Composi								Soil Cleanup
USEPA Method 6010 & 7471	1 71					posite							te							Objectives (ppm)
Aluminum	mg/kg	4910		5970	J	10300	J	6210	J	3820		3890		6500						
Antimony	mg/kg		UJ		UJ		UJ	0.5	J		UJ		U		UJ					
Arsenic	mg/kg	4.2		9		7.1		8.6		3.9		4.2		6.8						13
Barium	mg/kg	44.8	J	73.4	J	52.9	J	99.8	J	39.3	J	43	J	195	J					350
Beryllium	mg/kg	0.16	J	0.26	J	0.42	J	0.28	J	0.16		0.17	J	0.26	J					7.2
Cadmium	mg/kg	0.16	В	0.13	J	0.078	J	0.3	J	0.11		0.16		0.24	В					2.5
Calcium	mg/kg	54200		68400		50400		17500		26600		129000		32200						
Chromium	mg/kg	24		10.1	J	16	J	9.6	J	17.6		33.9		75.2						30
Cobalt	mg/kg	4.6	J	6.7	J	7.7	J	5.1	J	3.4	J	3.8	J	5.1	J					
Copper	mg/kg	48.1		29.4	J	58.1	J	125	J	34.9		34.8		53.9						50
Iron	mg/kg	13000		20700		27300		16300		9830		9730		13800						
Lead	mg/kg	32.4		70.4	J	44.5	J	38.4	J	42.5		18.7		83.5						63
Magnesium	mg/kg	10700	J	8670	J	12900	J	5610	J	6430	J	10300	J	7890	J					
Manganese	mg/kg	338	J	322	J	213	J	113	J	135	J	326	J	297	J					1,600
Mercury	mg/kg	0.14	J	0.11		0.8		1.2		0.14	J	0.068	J	0.11	J					0.18
Nickel	mg/kg	16.8	J	13.1	J	23	J	16.3	J	11.8	J	20.9	J	31.7	J					30
Potassium	mg/kg	1040		875		1230		773		617		900		749						
Selenium	mg/kg		U		U	0.68		1.7			U		U		U					3.9
Silver	mg/kg		U		U	1.9		9.7		0.38			U	0.19						2.0
Sodium	mg/kg	73.2	J	145		200		484		49.7		97.6		65.5						
Thallium	mg/kg	1.1		1.3		1.3			U	0.62		1.9		0.84						
Vanadium	mg/kg	12		13.7	J	15.6	J	12.2	J	9		10.2		15						
Zinc	mg/kg	57.9	J	67	J	78.8	J	147	J	56.1	J	41.9	J	134	J					109
Zinc	mg/kg	57.9	J	67	J	78.8	J	147	J	56.1	J	41.9	J	134	J					109
Zinc		57.9	J			78.8	J	147	J			41.9	J	134	J	CD OC				
Zinc	Sample Location		J	SB-06			J		J	SB-07			J		J	SB-08	1	12.1	4	Part 375
	Sample Location Sample Depth (ft)	57.9	J	SB-06 8-12	5	78.8	J	4-8	J	SB-07 8-12		12-14	J	4-8	J	8-12		12-1	4	Part 375 Unrestricted Use
Parameter List	Sample Location Sample Depth (ft) Sample Date		J	SB-06 8-12 1/19/20	5		J		J	SB-07 8-12 1/18/20	10		J		J	8-12 1/18/20	10	12-1-	4	Part 375 Unrestricted Use Soil Cleanup
Parameter List USEPA Method 6010 & 7471	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8	J	SB-06 8-12 1/19/20 Compos	ion 10 site	12-14		4-8		SB-07 8-12 1/18/20 Compos	10	12-14		4-8	J	8-12 1/18/20 Compos	10		4	Part 375 Unrestricted Use
Parameter List USEPA Method 6010 & 7471 Aluminum	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg]	SB-06 8-12 1/19/20	10 site		J		J	SB-07 8-12 1/18/20	10 ite		J		J	8-12 1/18/20	10 ite	12-1		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8] J	SB-06 8-12 1/19/20 Compos 2330	ion 10 site	12-14		4-8	J	SB-07 8-12 1/18/20 Compos 6160	10 ite J UJ	12-14	J	4-8 8290	UJ J	8-12 1/18/20 Compos 6870	10	4320	4 UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	9700 5.2	UJ	SB-06 8-12 1/19/20 Compos 2330	10 tite J UJ	3350 2.4	J J	4-8 5680 7.5	l ni	SB-07 8-12 1/18/20: Compos 6160	10 ite J UJ J	12-14 4200 4	1 1 1	4-8 8290 2.5		8-12 1/18/20 Compos 6870	10 ite UJ	4320	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	9700 5.2 54	UJ	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2	10 site J UJ J	3350 2.4 30.6	l UJ	4-8 5680 7.5 81.1	J UJ J	SB-07 8-12 1/18/20: Compos 6160 12.6 122	10 ite J UJ J J	12-14 4200 4 36	1 1 1 1	4-8 8290 2.5 118	J	8-12 1/18/20 Compos 6870 3.9 43.6	10 ite UJ	4320 4.8 39.7	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	9700 5.2	J J	SB-06 8-12 1/19/20 Compos 2330	10 site J UJ J J J	3350 2.4	1 1 1 1 1	4-8 5680 7.5 81.1 0.27	l ni	SB-07 8-12 1/18/20; Compos 6160 12.6 122 0.21	10 ite J UJ J	12-14 4200 4 36 0.13	1 1 1	4-8 8290 2.5 118 0.24		8-12 1/18/20 Compos 6870	10 ite UJ J BJ	4320	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	9700 5.2 54 0.33	UJ	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093	10 site J UJ J	3350 2.4 30.6 0.12	l UJ	4-8 5680 7.5 81.1 0.27 0.53	1 1 1 1 1	SB-07 8-12 1/18/20; Compos 6160 12.6 122 0.21 0.17	10 ite J UJ J J J	12-14 4200 4 36 0.13 0.12	1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22	10 ite UJ	4320 4.8 39.7 0.16	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4-8 9700 5.2 54 0.33 47600	I I I I I	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093	10 iite J UJ J UJ UJ UJ	12-14 3350 2.4 30.6 0.12	1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000	1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170	10 ite J UJ J J J J	4200 4 36 0.13 0.12 50700	1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22	10 ite UJ J BJ	4320 4.8 39.7 0.16	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	9700 5.2 54 0.33 47600 11.7	J J J UJ	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9	10 site J UJ J UJ J UJ	3350 2.4 30.6 0.12 32500 5.5	1	5680 7.5 81.1 0.27 0.53 43000 19.5	1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2	10 ite J UJ J J J J	4200 4 36 0.13 0.12 50700 8.2	1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9	10 ite UJ J BJ U	4320 4.8 39.7 0.16 60300 6.7	UJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9700 5.2 54 0.33 47600 11.7 6.7	l l l l l	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4	10 site J UJ J UJ J UJ	3350 2.4 30.6 0.12 32500 5.5 3	1 1 1 1 1 1 1 1	5680 7.5 81.1 0.27 0.53 43000 19.5 5.4	1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4	IO ite UJ J J J J J BJ	4200 4 36 0.13 0.12 50700 8.2 5.8	1 1 1 1 1 1 1 1	8290 2.5 118 0.24 0.014 2940 14 3.1	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9	10 ite UJ J BJ	4320 4.8 39.7 0.16 60300 6.7 3.7	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5	J J J UJ	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 32000 3.9 2.4 8.4	10 site J UJ J UJ J UJ	3350 2.4 30.6 0.12 32500 32500 7.9	1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2	1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20; Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5	IO ite UJ J J J J BJ J J	4200 4 36 0.13 0.12 50700 8.2 5.8 15.3	1 1 1 1 1 1 1 1 1	8290 2.5 118 0.24 0.014 2940 14 3.1 21.1	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7	10 ite UJ J BJ U	4320 4.8 39.7 0.16 60300 6.7 3.7 10	UJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400	1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170	10 site J UJ J UJ J J J J J J J J J J J J J	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190	1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500	1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20; Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600	J UJ J J J J J J J J J J J J J J J J J	4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000	1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370	J	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400	10 ite UJ J BJ U	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000	UJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7	1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6	10 iite	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8	1 1 1 1 1 1 1 1 1	5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37	1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3	J UJ J J J J J J J J J J J J J J J J J	4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4	1 1 1 1 1 1 1 1 1 1	8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6	l l	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6	J BJ U	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2	n n n	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300	1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240	10 iite	3350 2.4 30.6 0.12 32500 5.5 3 7.9 1.8 9250	1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300	1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20 Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820	10 ite	4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610	1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040	J J J J	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200	J U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433	1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240	10 iite	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8	1 1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431	1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128	J UJ J J J J J J J J J J J J J J J J J	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298	1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3]]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153	10 ite UJ J BJ U J	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2	J J U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16	1 1 1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 6170 1.6 7240 176 0.0088	10 10 11 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8 9250 202	1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20; Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022	1 1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047]]]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016	J J J J J J J J J J J J J J BJ J BJ	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380	1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2	1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240 176 0.0088 5.3	10 iite	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8 9250 202	1 1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7	1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4	1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1]]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8	10 ite UJ J BJ U J	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380	J J U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2 1160	1 1 1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 6170 1.6 7240 176 0.0088	10 10 11 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8 9250 202	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20 Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022	1 1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1 787]]]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8	J J J J J J J J J J J J J J BJ J BJ	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380	1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Cadmium Clacium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg 4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2]]]]]]]]]]]]]]]]]]]	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240 176 0.0088 5.3	10 10 10 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8 9250 202	1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431 1.6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4	10 UJ J J J J J J J J J J J J J J J J J J	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1	1 1 1 1 1	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8	UJ J J J J J J J J J J J J	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380	1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18 30 3.9	
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2 1160 1.2	1 1 1 1 1 1 1 1 1 1	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240 176 0.0088 5.3 512	10 10 11 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 7.9 8190 1.8 9250 202 7.3 745	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431 1.6 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4 550 2.1	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4 531	1 1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1 787 0.98]]]]]]	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8 866 1.3	J J J J J J J J J J J J J J BJ J BJ	4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380 9.9	1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2 1160 1.2]]]]]]]]]]]]]]]]]]]	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 6170 1.6 7240 176 0.0088 5.3 512	10 10 10 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 8190 1.8 9250 202 7.3 745	1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431 1.6 2 1760	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20 Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4 531	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1 787	1 1 1 1 1	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8	UJ BJ U J BJ J J J U U U U U U U U U U	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380 9.9 1070	1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18 30 3.9
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Cadmium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Selenium Selenium Selenium Sodium Thallium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 114.2 1160 1.2]]]]]]]]]]]]]]]]]]]	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 8.4 6170 1.6 7240 176 0.0088 5.3 512	10 10 10 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 7.9 818 9250 202 7.3 745	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431 1.6 2 1760 1.2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4 550 2.1	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4 531	D U U U U U U U U U U U U U U U U U U U	8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1 787 0.98	1 1 1 1 1	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8 866 1.3	UJ J J J J J J J J J J J J	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000 20 16200 380 9.9 1070	1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 63 1,600 0.18 30 3.9 2.0
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 9700 5.2 54 0.33 47600 11.7 6.7 46.5 23400 33.7 22300 433 0.16 14.2 1160 1.2]]]]]]]]]]]]]]]]]]]	SB-06 8-12 1/19/20 Compos 2330 1.3 39.2 0.093 32000 3.9 2.4 6170 1.6 7240 176 0.0088 5.3 512	10 10 10 11 11 11 11 11 11 11 11 11 11 1	3350 2.4 30.6 0.12 32500 5.5 3 8190 1.8 9250 202 7.3 745	1 1 1 1 1 1 1 1 1 1 1	4-8 5680 7.5 81.1 0.27 0.53 43000 19.5 5.4 60.2 13500 37 18300 431 0.36 14.7 431 1.6 2 1760	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-07 8-12 1/18/20: Compos 6160 12.6 122 0.21 0.17 3170 13.2 3.4 36.5 13600 7.3 1820 128 0.065 9.4 550 2.1	10 ite	12-14 4200 4 36 0.13 0.12 50700 8.2 5.8 15.3 16000 4.4 8610 298 0.022 10.4 531	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 8290 2.5 118 0.24 0.014 2940 14 3.1 21.1 8370 6.6 2510 69.3 0.047 10.1 787 0.98	1 1 1 1 1	8-12 1/18/20 Compos 6870 3.9 43.6 0.22 4230 11.9 7 12.4 21400 4.6 4040 153 0.016 13.8 866 1.3	UJ BJ U J BJ J J J U U U U U U U U U U	4320 4.8 39.7 0.16 60300 6.7 3.7 10 20000 2 16200 380 9.9 1070	1 1 1 1 1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18 30 3.9 2.0

		1																		
	Sample Location			SB-09)					SB-10						SB-11	ı			D : 275
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14	1	Part 375
Parameter List	Sample Date	4-0		1/19/20	10	12-14		4-0		1/18/20	10	12-14		4-0		1/18/20	10	12-1-		Unrestricted Use Soil Cleanup
USEPA Method 6010 & 7471	Sample Type			Compos						Compos						Compos				Objectives (ppm)
Aluminum	mg/kg	8490	J	6660	J	8440	J	4730	J	6700	J	3130	J	5150	J	4090	J	4290	J	
Antimony		8490	UJ	0000	UJ	0440	UJ	4730	UJ	0700	UJ	3130	UJ	3130	UJ	4090	UJ	4290	UJ	
Arsenic	mg/kg mg/kg	1.6	O3	8.8	O3	2.9	UJ	5.9	I	2.6	J	5	J	7.2	J	4.5	I	5	I	13
Barium	mg/kg	133	ī	74.6	I	98.5	J	55.4	I	48.2	J	22.8	J	52.2	J	70.9	I	48.4	J I	350
Beryllium	mg/kg	0.24	J	0.33	J	0.28	J	0.2	J	0.24	J	0.11	J	0.25	J	0.16	BJ	0.25	I	7.2
Cadmium	mg/kg	0.24	UJ	2.8	J	0.28	J	0.46	J	0.24	J	0.071	J	0.25	J	0.10	DJ	0.23	,	2.5
Calcium	mg/kg	2640	03	24300	,	4240	J	15500	J	6170	J	60400	J	18300	J	5060	J	27500	J	2.3
Chromium	mg/kg	37.4	ī	513	J	32	J	14.2	I	12.7	J	6	J	71.5	J	11.4	J	6.9	I	30
Cobalt	mg/kg	3.5	J	5	J	7.4	J	5.2	I	7.7	J	3.4	J	4.6	J	3.4	J	4.8	I	
Copper	mg/kg	25.5	J	702	J	36.1	J	27.6	J	14.7	J	10.6	J	109	J	35	J	13.9	I	50
Iron	mg/kg	9960	-	15900	-	24500	,	19900	I	22100	J	15600	J	11300	J	6690	I	14600	ı	
Lead	mg/kg	9.6	J	102	J	10.1	J	7	J	5.6	J	3	J	51.2	J	5.6	J	3.7	J	63
Magnesium	mg/kg	2760	J	10700	J	4150	J	2310	J	3960	J	14100	J	6520	J	987	J	10300	J	
Manganese	mg/kg	74	J	192	J	231	J	411	J	245	J	341	J	146	J	61.5	J	170	J	1,600
Mercury	mg/kg	0.025		0.24	,	0.027	,	0.08	,	0.024	,	0.0075		0.39	,	0.089		0.0097	,	0.18
Nickel	mg/kg	15.6	J	212	J	22.2	J	10	J	15.1	J	7.6	J	30.7	J	7.8	J	10.4	J	30
Potassium	mg/kg	625		870	_	949	1	360	-	606		508		405	-	376	۰	552		
Selenium	mg/kg	0.96	В	0.94		1.2		2.3		0.98		- 00	U	0.94	В	1.6	†		U	3.9
Silver	mg/kg		U	3.3			U		UJ		UJ		UJ	2.1	J		UJ		UJ	2.0
Sodium	mg/kg	83.5		67.4		98.3	Ť	2120		374		94.7		728		909		248		
Thallium	mg/kg		U	0.78		0.62		0.77		0.57		1.3		0.39	В		U	0.57	В	
Vanadium	mg/kg	15.3	J	15.9	J	17.4	J	10.7	J	16.6	J	7.9	J	12.9	J	19.5	J	11	J	
Zinc	mg/kg	48.8	J	465	T	= 0			_			15.0	J	00.1		16.4	J	22.8	J	400
	IIIg/kg	40.0		405	J	72	J	45.7	J	54.3	J	15.9	J	90.1	J	10.4	J	22.6		109
		40.0	J		,	72	J	45.7	J			15.9	J	90.1	J			22.6		109
	Sample Location		,	SB-12	,				J	SB-13					J	SB-14				Part 375
	Sample Location Sample Depth (ft)	4-8		SB-12 8-12	!	12-14		45.7	J	SB-13 8-12		12-24		4-8	J	SB-14 8-12	1	12-14		Part 375 Unrestricted Use
Parameter List	Sample Location Sample Depth (ft) Sample Date			SB-12 8-12 1/18/20	10				J	SB-13 8-12 1/18/20	10				J	SB-14 8-12 1/18/20	10			Part 375 Unrestricted Use Soil Cleanup
Parameter List USEPA Method 6010 & 7471	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8		SB-12 8-12 1/18/20 Compos	10	12-14		4-8		SB-13 8-12 1/18/20 Compos	10	12-24		4-8	J	SB-14 8-12 1/18/20 Compos	10	12-14		Part 375 Unrestricted Use
Parameter List USEPA Method 6010 & 7471 Aluminum	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg			SB-12 8-12 1/18/20	10 ite		J		J	SB-13 8-12 1/18/20	10 ite		J			SB-14 8-12 1/18/20 Compos 4780	1 10 site			Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8	UJ	SB-12 8-12 1/18/20 Compos 6690	10	12-14	J	4-8 5920	J	SB-13 8-12 1/18/20 Compos 7000	10 ite J UJ	12-24 3980	J	4-8	UJ	SB-14 8-12 1/18/20 Compos 4780 0.31	10	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	4-8 5140	UJ	SB-12 8-12 1/18/20 Compos 6690	10 ite	2330 2.4] J	4-8 5920 3.9	1 1 1	SB-13 8-12 1/18/20: Compos 7000	10 ite J UJ J	12-24 3980 17.7	1 1 1	4-8 4720 19.8	UJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4	10 site	12-14 4260 4.6	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	4-8 5140 19 36.4	UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1	10 ite	12-14 2330 2.4 19.5	J J	4-8 5920 3.9 86.7	1 UJ 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85	10 ite J UJ J J	3980 17.7 29.1	1 UJ J	4-8 4720 19.8 50	ni ni	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9	10 site	4260 4.6 21.3		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	4-8 5140 19 36.4 0.18	J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33	10 ite	2330 2.4 19.5 0.087	1 1 1 1 1	4-8 5920 3.9 86.7 0.32	1 1 1	SB-13 8-12 1/18/20; Compos 7000 3.5 85 0.19	10 ite J UJ J	12-24 3980 17.7	1 1 1 1 1	4-8 4720 19.8 50 0.19	UJ J BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18	10 site	12-14 4260 4.6	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4-8 5140 19 36.4 0.18 0.0082	UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61	10 ite	2330 2.4 19.5 0.087 0.14	ј	4-8 5920 3.9 86.7 0.32 0.51	1 UJ 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27	10 ite J UJ J J J	3980 17.7 29.1 0.14	1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027	ni ni	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14	10 site	4260 4.6 21.3 0.17	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700	J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300	10 ite	2330 2.4 19.5 0.087 0.14 10800	J UJ J J J	4-8 5920 3.9 86.7 0.32 0.51 2830	1 1 1 1 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650	10 ite UJ J J J J J	3980 17.7 29.1 0.14 56200	1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200	UJ J BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14	10 site	4260 4.6 21.3 0.17	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2	UJ J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1	1 B 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6	1 1 1 1 1 1	SB-13 8-12 1/18/20 Compos 7000 3.5 85 0.19 0.27 3650 24	100 ite UJ J J J J J J J	3980 17.7 29.1 0.14 56200 7.4	1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7	UJ J BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2	10 site	12-14 4260 4.6 21.3 0.17 55400 7	UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6	J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5	J UJ J J J	5920 3.9 86.7 0.32 0.51 2830 14.6 2.1	1 1 1 1 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9	10 ite UJ J J J J J	3980 17.7 29.1 0.14 56200 7.4 9.8	1 1 1 1 1 1	4720 19.8 50 0.19 0.027 44200 7.7 5.3	UJ J BJ BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5	10 site J J J J	12-14 4260 4.6 21.3 0.17 55400 7 3.9	UJ UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18	UJ J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1	1 B 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6	J J J J	SB-13 8-12 1/18/20 Compos 7000 3.5 85 0.19 0.27 3650 24	100 ite UJ J J J J J J J J J	3980 17.7 29.1 0.14 56200 7.4	1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7	UJ J BJ BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2	10 site J J J J	12-14 4260 4.6 21.3 0.17 55400 7	UJ UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600	UJ J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7	J UJ J J J J	3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8	J J J J	SB-13 8-12 1/18/20; Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9	10 ite	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6	1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16	UJ J BJ BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5	10 site J J J J	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16	UJ UJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8	UJ J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380	J UJ J J J J	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930	1 B1 1 1 1 1 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330	10 ite	3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500	1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800	UJ J BJ BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500	10 site J J J J	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600	J J UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 28000	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380	J J J J J J	5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8	1 1 1 1 1 1 1 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9	10 ite J	3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7	1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9	UJ J BJ BJ	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9	10 site J J J J J J J	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3	UJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8 12600	J J U UJ	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4 12100	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7	1 1 1 1 1 1 1 1 1 1 1	5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480	1 BJ J J J J	SB-13 8-12 1/18/20 Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110	10 ite	3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600	1 1 1 1 1 1 1 1 1 1 1 1	4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200	I BJ BJ T I	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9	t 10 10 J J J J J J J J J J J J J J J J J	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100	UJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8 12600 379	J J U U U U U	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4 12100 306	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107	1 1 1 1 1 1 1 1 1 1 1	5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5	1 BJ J J J J	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110 86.7	10 ite	3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242	UJ J BJ J J	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9 4500 274	10	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352	J U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 63 1,600
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8 12600 379 0.029	UJ J J J J	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 28000 49.4 12100 306 0.2	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057	1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11	1 BJ J J J J	SB-13 8-12 1/18/20; Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110 86.7 0.065	10 ite	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021	1 1 1 1 Bl Bl	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 488.4 14500 11.9 4500 274 0.17	10	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01	1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	Sample Location Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8 12600 379 0.029 11.4	UJ J J J J	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4 12100 306 0.2 16.4	10 ite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057 6.3	1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11 7.2	1 BJ J J J J	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110 86.7 0.065 10.2	10 ite	3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021 10.8	1 1 1 1 Bl Bl	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9 4500 274 0.17 9.3	10	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01 10	1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.082 37700 8.2 5.6 18 12600 379 0.029 11.4 768	1 1 1 1 1 1 1 1 1 1	SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4 12100 306 0.2 16.4 771	110 iite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057 6.3 206	1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11 7.2 679	1 BJ J J J J	SB-13 8-12 1/18/20 Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 86.9 2110 86.7 0.065 10.2 590	10 ite	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312 10.8 562	1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021 10.8	UJ J BJ J J J J J	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9 4500 274 0.17 9.3	10 site	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01 10	1 1 1 1 1 1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.082 37700 8.2 5.6 18 12600 379 0.029 11.4 768		SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 50.7 28000 49.4 12100 306 0.2 16.4 771	110 iite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057 6.3 206 0.89	1 1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11 7.2 679	J UJ J J J J	SB-13 8-12 1/18/20 Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 86.9 2110 86.7 0.065 10.2 590	10 UJ J J J J J J J J J J J J J J J J J J	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312 10.8 562	1 J J J J J J J J J J J J J J J J J J J	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021 10.8	UJ BJ BJ J J J J U	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9 4500 274 0.17 9.3 617	10 site	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01 10	1 J J J J J J J J J J J J J J J J J J J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30 3.9
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver	Sample Location Sample Depth (ft) Sample Depth (ft) Sample Date Sample Type mg/kg	4-8 5140 19 36.4 0.18 0.0082 37700 8.2 5.6 18 18600 8 12600 379 0.029 11.4 768 0.61		SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 28000 49.4 12100 306 0.2 16.4 771 1.2	110 iite	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057 6.3 206 0.89 0.1	1 1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11 7.2 679 1.6	J UJ J J J J	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110 86.7 0.065 10.2 590 1.6	10 UJ J J J J J J J J J J J J J J J J J J	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312 10.8 562 0.6	1 J J J J J J J J J J J J J J J J J J J	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021 10.8 880	UJ BJ BJ J J J J U	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 14.500 11.9 4500 274 0.17 9.3 617	10 site	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01 10 1010	1 J J J J J J J J J J J J J J J J J J J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 50 1,600 0.18 30 1,300 1,400 0.18 30 3.9 2.0
Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Cadmium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Selenium Selenium Silver Sodium	Sample Location Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg 4-8 5140 19 36.4 0.18 0.082 37700 8.2 5.6 18 18600 8 12600 11.4 768 0.61		SB-12 8-12 1/18/20 Compos 6690 37 63.1 0.33 0.61 43300 16 7 28000 49.4 12100 306 0.2 16.4 771 1.2 3 449	U U B B B	2330 2.4 19.5 0.087 0.14 10800 5.1 3.5 16.7 7380 7 3080 107 0.057 6.3 206 0.89 0.1	1 U1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4-8 5920 3.9 86.7 0.32 0.51 2830 14.6 2.1 25.8 5930 6.8 1480 56.5 0.11 7.2 679 1.6	1 1 1 1 1 1 1 1 1 1 1 1 1	SB-13 8-12 1/18/20: Compos 7000 3.5 85 0.19 0.27 3650 24 2.9 28.9 8330 6.9 2110 86.7 0.065 10.2 590 1.6	10 ite	12-24 3980 17.7 29.1 0.14 56200 7.4 9.8 9.6 22500 2.7 12600 312 10.8 562 0.6	J UJ J J J J J UJ J UJ J UJ J	4-8 4720 19.8 50 0.19 0.027 44200 7.7 5.3 16 11800 13.9 12200 242 0.021 10.8 880	UJ BJ BJ J J J J U	SB-14 8-12 1/18/20 Compos 4780 0.31 4.4 54.9 0.18 0.14 14900 8.2 5 48.4 14500 11.9 4500 274 0.17 9.3 617	10 site	12-14 4260 4.6 21.3 0.17 55400 7 3.9 16 18300 3 11100 352 0.01 10 1010	1 J J J J J J J J J J J J J J J J J J J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30 3.9 2.0	

	Sample Location			SB-15						SB-16						SB-1	7			D . 275
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14	1	Part 375 Unrestricted Use
Parameter List	Sample Date	7.0		1/18/20	10	12 14				1/18/20	10	12 14		7.0		1/19/20	10	12 1-		Soil Cleanup
USEPA Method 6010 & 7471	Sample Type			Compos						Compos						Compos				Objectives (ppm)
Aluminum	mg/kg	7600	J	4860	J	4770	J	6780	J	5540	J	3510	J	5880	J	7000	J	4090	J	
Antimony	mg/kg	0.77	J	4800	UJ	0.19	J	0780	UJ	3340	UJ	3310	UJ	3660	UJ	7000	UJ	4020	J	
Arsenic	mg/kg	5.2	ī	5.9	J	7.2	J	5.7	I	2.5	J	3.8	J	3.9	O3	3.3	UJ	7.8	,	13
Barium	mg/kg	57.2	I	86.8	J	47.2	J	86.3	J	80.8	J	10.5	J	77.2	J	43.1	J	17.7	J	350
Beryllium	mg/kg	0.23	ī	0.24	J	0.23	J	0.33	J T	0.11	J	0.1	BJ	0.22	J	0.27	J	0.15	ı	7.2
Cadmium	mg/kg	0.25	J	1.1	,	0.23	J	0.33	J	0.11	J	0.075	В	0.043	J	0.27	UJ	0.13	UJ	2.5
Calcium	mg/kg	42400	J	42700	J	20500	J	7190	J	3440	J	17300	J	4670	,	8930	03	48600	C3	2.3
Chromium	mg/kg	13.4	ī	245	I	17.4	J	12.3	ī	11.8	J	7.7	J	9.3	J	13.7	J	6.9	ī	30
Cobalt	mg/kg	7.4	ī	4.6	J	5.4	J	5.2	ī	3.7	J	4.5	J	2.7	J	6.7	J	3.7	ı	
Copper	mg/kg	22.9	ī	139	J	64.4	J	68.7	ī	16.5	J	8.4	J	28.7	J	15.7	J	11.9	ı	50
Iron	mg/kg	23100	I	16600	ī	22800	ı	13000	ī	11000	I	11600	J	7090		17100		9280		
Lead	mg/kg	39.9	I	92.1	J	45.3	J	20.4	I	5.1	J	3.3	J	10.1	ī	5.3	J	2.7	I	63
Magnesium	mg/kg	10800	J	7490	J	5780	J	3670	J	2400	J	8320	J	2340	J	4220	J	12500	J	
Manganese	mg/kg	242	J	315	J	262	J	219	J	98.9	J	193	J	75.9	J	173	J	229	J	1,600
Mercury	mg/kg	0.073		0.12		0.23	Ť	0.34		0.036		0.011	В	0.31	Ť	0.013	Ť	0.0074	t	0.18
Nickel	mg/kg	16.4	J	89.7	J	15.9	J	13.2	J	9.5	J	8.5	J	7.9	J	13.5	J	8.6	J	30
Potassium	mg/kg	751		463		399	1	431		507		436		501	<u> </u>	938		880	1	
Selenium	mg/kg		U	0.67	В	1.3		1.3		1.3		0.85	В	1.1		1.6			U	3.9
Silver	mg/kg		UJ	2.7	J	3	J	3	J		UJ		UJ	1.1			U		U	2.0
Sodium	mg/kg	64.7		237		416		393		172		150		199		183		104		
Thallium	mg/kg	0.91		0.96		0.77		0.44		0.27		0.45	В		U	0.59		1.1		
Vanadium	mg/kg	14.6	J	12.4	J	11.7	J	15.2	J	14.3	J	12.8	J	14.6	J	17	J	10	J	
Zinc	mg/kg	48.5	J	137	J	97	J	70	J	29.5	J	24.2	J	34.2	J	46.4	J	14.3	J	109
	Sample Location			SB-18	3					SB-19						SB-20	0			Part 375
	Sample Depth (ft)	4-8		8-12	3	12-14		0-4		4-8		8-12		4-8		8-12		12-14	4	Part 375 Unrestricted Use
Parameter List	Sample Depth (ft) Sample Date	4-8		8-12 1/19/2010	3	12-14		0-4		4-8 1/19/20	10	8-12		4-8		8-12 1/19/20	010	12-14	4	Unrestricted Use Soil Cleanup
USEPA Method 6010 & 7471	Sample Depth (ft) Sample Date Sample Type			8-12 1/19/2010 Composite		•				4-8 1/19/202 Compos	10	•				8-12 1/19/20 Compos	010	•	4	Unrestricted Use
USEPA Method 6010 & 7471 Aluminum	Sample Depth (ft) Sample Date Sample Type mg/kg	NR		8-12 1/19/2010	J	12-14	J	0-4		4-8 1/19/20	10 ite	8-12		4-8 11500		8-12 1/19/20	010 site	12-14		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 6010 & 7471 Aluminum Antimony	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	NR NR		8-12 1/19/2010 Composite 3960		3890		13900	UJ	4-8 1/19/201 Compos 3740	10	3530	UJ	11500	UJ	8-12 1/19/20 Compos 11100	010	13800	4 UJ	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	NR NR NR		8-12 1/19/2010 Composite 3960 2.6	J UJ	3890	J UJ	13900		4-8 1/19/202 Compos 3740 4.5	ite UJ	3530 3.2		11500		8-12 1/19/20 Compos 11100	o10 site UJ	13800	UJ	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6 17.2	J UJ J	3890 2.3 13.5	J UJ	13900 7.4 134	J	4-8 1/19/201 Compos 3740 4.5 37	10 ite UJ J	3530 3.2 42.1	J	11500 5.6 85.5	J	8-12 1/19/20 Compos 11100 5.1 111	010 site UJ J	13800 6.2 154	n)	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6	J UJ BJ	3890	J J	7.4 134 0.64		4-8 1/19/202 Compos 3740 4.5	10 ite UJ J BJ	3530 3.2	J BJ	11500	J	8-12 1/19/20 Compos 11100 5.1 111 0.39	o10 site UJ	13800 6.2 154 0.57	UJ	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15	J UJ J	3890 2.3 13.5 0.14	J UJ	7.4 134 0.64 0.84	J	4-8 1/19/202 Compos 3740 4.5 37 0.14	10 ite UJ J	3530 3.2 42.1 0.14	J	11500 5.6 85.5 0.52	J	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47	010 site UJ J	13800 6.2 154 0.57 2.4	n)	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15	J UJ J BJ	2.3 13.5 0.14 37300	nn 1 1 nn 1	7.4 134 0.64 0.84 8450	J	4-8 1/19/20: Compos 3740 4.5 37 0.14	10 ite UJ J BJ	3530 3.2 42.1 0.14 58800	J BJ	5.6 85.5 0.52	J	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400	010 site UJ J	13800 6.2 154 0.57 2.4 11200	n)	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium	Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7	J BJ UJ	3890 2.3 13.5 0.14 37300 7.2	I I I I I I	7.4 134 0.64 0.84 8450 182	J	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8	10 ite UJ J BJ U	3530 3.2 42.1 0.14 58800 5.6	J BJ U	5.6 85.5 0.52 6020 20	J J U	8-12 1/19/20 Compos 11100 5.1 1111 0.39 0.47 16400 17.2	olo Site UJ J J	13800 6.2 154 0.57 2.4 11200 240	J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt	Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR NR NR NR NR NR NR NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3	J UJ J BJ	3890 2.3 13.5 0.14 37300 7.2 4.4	1 1 1 1 1 1 1	7.4 134 0.64 0.84 8450 182 9.8	J	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8	10 ite UJ J BJ	3530 3.2 42.1 0.14 58800 5.6 3.7	J BJ	5.6 85.5 0.52 6020 20 9.1	J	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400 17.2 4.6	010 site UJ J	13800 6.2 154 0.57 2.4 11200 240 6.6	n)	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Depth (ft) Sample Date Sample Type mg/kg	NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3	J BJ UJ	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8	I I I I I I	13900 7.4 134 0.64 0.84 8450 182 9.8 70	J	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8	10 ite UJ J BJ U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1	J BJ U	5.6 85.5 0.52 6020 20 9.1 22.1	J J U	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400 17.2 4.6 23.3	olo Site UJ J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270	J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Depth (ft) Sample Date Sample Type mg/kg	NR		8-12 I/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000	J UJ J BJ UJ	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000	1 1 1 1 1 1 1 1 1	7.4 134 0.64 0.84 8450 182 9.8 70	J	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1	10 ite UJ J BJ U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890	J BJ U	5.6 85.5 0.52 6020 20 9.1 22.1 29200	J J U	8-12 1/19/20 Composition of the state of t	olo Site UJ J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300	J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Depth (ft) Sample Date Sample Type mg/kg	NR		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9	J BJ UJ	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5	1 1 1 1 1 1 1 1 1	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2	J	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2	UJ BJ U J	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2	J BJ U	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7	J U	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400 17.2 4.6 23.3 13300 8.2	J J J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8	J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9	J UJ J J UJ	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5 13900	1 1 1 1 1 1 1 1 1 1	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840	1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2	J BJ U	3530 3.2 42.1 0.14 58800 58.6 3.7 9.1 9.8 9.2 14100	J BJ U	11500 5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480	J U	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400 17.2 4.6 23.3 13300 8.2 7380	olo Site UJ J J	13800 6.2 154 0.57 2.4 1120 240 6.6 2730 258.8 6530	J J DJ	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221	J UJ BJ UJ J J J J	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 187	1 1 1 1 1 1 1 1 1 1 1 1	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269	1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2	J BJ U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2	J BJ U J	11500 5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157	J J J	8-12 1/19/20 Composition of the composition of th	J J J J J	13800 6.2 154 0.57 2.4 1200 240 6.6 270 22300 2300 182	J J J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 I/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011	J J J J J J	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5 13900 187 0.015	1 1 1 1 1 1 1 1 1 1	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044	1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413	J BJ U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350	J BJ U	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088	J U	8-12 1/19/20 Composition of the composition of th	J J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2	J J J	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011	J UJ BJ UJ J J J J	3890 2.3 13.5 0.14 37300 7.2 4.4 10000 3.5 13900 187 0.015	J J J J J J B	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6	1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2	J BJ U J J J J U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350	J BJ U J J U	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8	J J J	8-12 1/19/20 Composition of the composition of th	J J J J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2	1 1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011	J UJ BJ UJ J J J J	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5 13900 187 0.015	J J J J J J B	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044	1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413	J BJ U J J J J U	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350	J BJ U J J U	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088	J J J	8-12 1/19/20 Composition of the composition of th	J J J J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2	1 1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium	Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011	J UJ J J J J J J	3890 2.3 13.5 0.14 37300 7.2 4.4 10000 3.5 13900 187 0.015	J UJ J J J J J	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6	1 1 1 1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413	10 ite	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350	J BJ U J J UJ J	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8	J J J J J J	8-12 1/19/20 Composition of the composition of th	J J J J J J J J J J J J J J J J J J J	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2	1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011	1 U U U U U U U U U U U U U U U U U U U	3890 2.3 13.5 0.14 37300 7.2 4.4 10000 3.5 13900 187 0.015	1 U	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6	1 1 1 1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413	10 ite UJ	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350	J BJ U J J UJ J	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8	J J J J U	8-12 1/19/20 Composition of the composition of th	J J J J J J J J U U	13800 6.2 154 0.57 2.4 0.57 2.40 6.6 270 2230 58.8 6530 182 0.2 116	1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 63 1,600 0.18 30 3.9
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver	Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011 9.1 791	1 U U U U U U U U U U U U U U U U U U U	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5 13900 187 0.015 10 647	1 U	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6 849	1 1 1 1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413	10 ite UJ	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350 8.7 936	J BJ U J J UJ J	5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8	J J J J U	8-12 1/19/20 Composition of the composition of th	J J J J J J J J U U	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2 116 1080	1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18 30 1,900 0.18 30 3.9 2.0
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadnium Calcium Chromium Cobalt Copper Iiron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Selenium Selenium Selenium Silver Sodium	Sample Depth (ft) Sample Date Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011 9.1 791	1 U U U U U U U U U U U U U U U U U U U	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.5 13900 187 0.015 10 647	1 U	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6 849	1 1 1 1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413 9.9 908	10 ite UJ	3530 3.2 42.1 0.14 58800 5.6 3.7 9.1 9890 2.2 14100 350 8.7 936	J BJ U J J UJ J	11500 5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8 1250	J J J J U	8-12 1/19/20 Composition of the composition of th	J J J J J J J J U U	13800 6.2 154 0.57 2.4 11200 240 6.6 270 22300 58.8 6530 182 0.2 116 1080	1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 50 63 1,600 0.18 30 3.9 2.0
USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium	Sample Depth (ft) Sample Date Sample Type mg/kg	NR N		8-12 1/19/2010 Composite 3960 2.6 17.2 0.15 41200 6.7 4.3 17.3 10000 2.9 10700 221 0.011 9.1 791	1 U U U U U U U U U U U U U U U U U U U	3890 2.3 13.5 0.14 37300 7.2 4.4 27.8 10000 3.05 13900 187 0.10 647	0 U U U U U U U U U U U U U U U U U U U	13900 7.4 134 0.64 0.84 8450 182 9.8 70 32700 43.2 5840 269 0.044 80.6 849	1 1 1 1 1	4-8 1/19/20: Compos 3740 4.5 37 0.14 72800 5.8 4.8 19.1 10300 2.2 11700 413 9.9 908	10 ite UJ	3530 3.2 42.1 0.14 58800 5.6 3.7 9.19 9.20 14100 350 8.7 936	J BJ U J J U J UJ J	11500 5.6 85.5 0.52 6020 20 9.1 22.1 29200 7.7 5480 157 0.0088 22.8 1250	J J J J U	8-12 1/19/20 Compos 11100 5.1 111 0.39 0.47 16400 17.2 4.6 23.3 13300 8.2 7380 173 0.044 32 965	J J J J J J J J U U	13800 6.2 154 0.57 2.40 11200 240 6.6 27300 258.8 6530 182 116 11080	1 1 1 1 1	Unrestricted Use Soil Cleanup Objectives (ppm) 13 350 7.2 2.5 30 50 1,600 0.18 30 3.9 2.0

Part							TABLE 3-4	META	L DETECTI	ONS IN	N SUBSURE	ACE 3	OIL								
Parameter 18																					
Parameter los		_ \																3			Part 375
Ministry Part Composite			2-6				10-14		2-6				10-14		2-6				10-14	ļ	Unrestricted Use
Manissman																					
Section marks						site						site						ite			Objectives (ppm)
Second Ong 1	Aluminum		1840		6660		6570		7360		7730		6050		9270		7790		5730		
Designation mg/kg 18.9 75 80.6 75 77 75 75 75 85 85 77 75 75																					
Bingstam																					
Exchans						*E		*E		*E		*E		*E		*E				_	
Estem meyke 228000 E 47800 E 57100 F 38800 E 21600 F 41800 F 59200 F 42800 F 22800 F 30 A STORMAN																		В		_	
Extension																					
Cababa																					
Copper																					
Image				BE		Е		Е		Е		Е		Е		E		Е		Е	
Lad				г		г		r		E		г		TC.		г		г		T	
Magnesiam																					
Manganece mg/kg 274 E 529 E 452 E 409 E 308 E 432 E 120 E 281 E 1,600 Mercary mg/kg 0.072 0.027 B 0.15 0.049 0.082 0.33 0.55 0.01 0.017 B 0.18 Nickel mg/kg 7.1 E 12.9 E 15.1 E 13.0 E 16 E 13.4 E 52.5 E 18.3 E 9.6 E 30 Potassismi mg/kg 5.72 * * * * * * * * * * * * * * * * * *														_				_			
Mercury merkg																				_	
Nakel				E				E		E		E		E		E		E		_	
Potassium mg/kg 527 s 1060 s 944 s 1110 s 1100 s 1080 s 883 s 878 s 658 s Scheim mg/kg 3.1 1.1 B U U U 0.73 B U U U 0.84 B U 3.9 Silver mg/kg 141 177 196 112 233 318 1090 1850 417 Thailium mg/kg 2.3 0.46 B U U U U U U U U U				E				E		E		E		E		E		E			
Schemish				*		*												*			
Sheet mg/kg						В	7	U	1110	IJ		В	1000	IJ	005	IJ		В	050	U	
Softmax			5.1	U			0.69				0.75				0.67		0.01				
Thailimn			141		177				112	Ť	233		318				1850		417		
Vanadism						В		U		U		U		U		U		U		U	
Sample Location SB-DUPO1 SB-DUPO2 SB-DUPO2 SB-DUPO2 SB-DUPO3 SB	Vanadium		9.6				13.4		15.1		16.1		12.1		21.2		19		13.3		
Sample Location SB-DUPOL SB	Zinc		22.8	NIIZ	21 /	NTC															
Sample Location SB-15 SB-05 Sample Depth (ft) 12:14 0.4 Sample Date 1/18/2010 1/19/2010 Aluminum mg/kg 360 J 5450 Antimiony mg/kg 360 J 5450 Antimony mg/kg UJ UJ Assenic mg/kg 4.5 J 5.2 Barium mg/kg 38 J 5.33 J Beryllium mg/kg 0.19 J 0.23 BJ Cabrium mg/kg 0.22 J 0.22 B Cakium mg/kg 13.7 J 30.4 A Cobalt mg/kg 2.8 J 82.1 I Copper mg/kg 2.8 J 82.1 I Ion mg/kg 288 J 25.2 I Magnesium mg/kg 28 J 55.2 I Magnesium mg/kg </td <td></td> <td>mg/kg</td> <td>22.0</td> <td>INE</td> <td>31.4</td> <td>NE</td> <td>148</td> <td>NE</td> <td>34.9</td> <td>NE</td> <td>50</td> <td>NE</td> <td>47.4</td> <td>NE</td> <td>71.3</td> <td>NE</td> <td>41.2</td> <td>NE</td> <td>25.8</td> <td>NE</td> <td>109</td>		mg/kg	22.0	INE	31.4	NE	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Sample Depth (ft) 12-14 0-4 Sample Date 1/18/2010 1/19/2010 Aluminum mg/kg 3660 J 5450 Antiniony mg/kg 3660 J 5450 Arsenic mg/kg 4.5 J 5.2 J Barium mg/kg 4.5 J 5.2 J Barium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadrium mg/kg 0.19 J 0.23 BJ Cadrium mg/kg 80100 J 85800 B Chromium mg/kg 81000 J 85800 B Chobalt mg/kg 4.4 J 4.9 J Cobalt mg/kg 28.9 J 82.1 B Iron mg/kg 37.8 J 55.2 L Magnesium mg/kg 2300		mg/kg					148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Parameter List Sample Date 1/18/2010 1/19/2010 Sample Type Composite Composite Composite Aluminum mg/kg 3660 J 5450 Markinony mg/kg UJ UJ Arsenic mg/kg 4.5 J 5.2 Sarium mg/kg 38 J 53.3 J Beryllium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadmium mg/kg 0.22 J 0.22 B Cadmium mg/kg 0.22 J 0.22 B Cakmium mg/kg 31.7 J 30.4 Cobalt mg/kg 4.4 J 4.9 J Copper mg/kg 11.70 J 55.2 Magnesium mg/kg 22300 J 22400 J Magnesium mg/kg 22300 J 22400 J Magnesium mg/kg 288 J 73 J Magnesium mg/kg 288 J 73 J Magnesium mg/kg 0.19 0.14 J Magnesium mg/kg 0.76 0.38			SB-DUP	P01	SB-DUF	P02	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
USEPA Method 6010 & 7471 Sample Type Composite Composite Aluminum mg/kg 3660 J 5450 Mantimony mg/kg UJ UJ UJ Arsenic mg/kg 4.5 J 5.2 Barium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadmium mg/kg 0.19 J 0.22 B Cadmium mg/kg 80100 J 85800 Cadmium mg/kg 80100 J 85800 Chromium mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 Iron mg/kg 12600 11500 Lead mg/kg 37.8 J 55.2 Magnesium mg/kg 23300 J 22400 J Mangamese mg/kg 2388 J 273 J Mangamese mg/kg 0.19 0.14 J Nickel mg/kg 0.17 J 17.7 J Potassium mg/kg 31.7 J 17.7 J Potassium mg/kg 31.6 0.10 J Thillium mg/kg 31.6 101 J Thillium mg/kg 31.7 J 31.1 Thillium mg/kg 31.6 101 J Thillium mg/kg 9.7 J 31.1		Sample Location	SB-DUP SB-15	P01	SB-DUF SB-05	P02	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Aluminum mg/kg 3660 J 5450 J Antimony mg/kg UJ UJ UJ Arsenic mg/kg 4.5 J 5.2 L Barium mg/kg 38 J 53.3 J B		Sample Location Sample Depth (ft)	SB-DUP SB-15 12-14	P01	SB-DUF SB-05 0-4	P02	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Antimony mg/kg UJ UJ Arsenic mg/kg 4.5 J 5.2 Barium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadmium mg/kg 0.19 J 0.23 BJ Calcium mg/kg 80100 J 85800 Claim Mg/kg 13.7 J 30.4 Cobat mg/kg 13.7 J 30.4 D J Copper Mg/kg 4.4 J 4.9 J G G Copper mg/kg 28.9 J 82.1 Mg	Parameter List	Sample Location Sample Depth (ft) Sample Date	SB-DUP SB-15 12-14 1/18/20	P01 5 1	SB-DUF SB-05 0-4 1/19/20	P02 5	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Arsenic mg/kg 4.5 J 5.2 J Barium mg/kg 38 J 5.3.3 J Barium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadnium mg/kg 0.22 J 0.22 B Chair Chair mg/kg 80100 J 85800 Chair Chair mg/kg 13.7 J 30.4 A A J 4.9 J Cobal Mg/kg 4.4 J 4.9 J Copper mg/kg 2.89 J 82.1 L L Inon mg/kg 2.89 J 82.1 L L L L A 4 J 4.9 J Copper mg/kg 2.89 J 82.1 L L L L L A A S 2.5 L L L L L L A S L <td>Parameter List USEPA Method 6010 & 7471</td> <td>Sample Location Sample Depth (ft) Sample Date Sample Type</td> <td>SB-DUP SB-15 12-14 1/18/20 Compos</td> <td>P01 5 4 10 site</td> <td>SB-DUF SB-05 0-4 1/19/20 Compos</td> <td>P02 5</td> <td>148</td> <td>NE</td> <td>34.9</td> <td>NE</td> <td>50</td> <td>NE</td> <td>47.4</td> <td>NE</td> <td>71.3</td> <td>NE</td> <td>41.2</td> <td>NE</td> <td>25.8</td> <td>NE</td> <td>109</td>	Parameter List USEPA Method 6010 & 7471	Sample Location Sample Depth (ft) Sample Date Sample Type	SB-DUP SB-15 12-14 1/18/20 Compos	P01 5 4 10 site	SB-DUF SB-05 0-4 1/19/20 Compos	P02 5	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Barium mg/kg 38 J 53.3 J Beryllium mg/kg 0.19 J 0.23 BJ Cadmium mg/kg 0.22 J 0.22 B Cakium mg/kg 80100 J 85800 Chromium mg/kg 13.7 J 30.4 Cobal mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 I Iron mg/kg 12600 11500 I <td< td=""><td>Parameter List USEPA Method 6010 & 7471 Aluminum</td><td>Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg</td><td>SB-DUP SB-15 12-14 1/18/20 Compos</td><td>P01 5 10 site</td><td>SB-DUF SB-05 0-4 1/19/20 Compos</td><td>P02 5</td><td>148</td><td>NE</td><td>34.9</td><td>NE</td><td>50</td><td>NE</td><td>47.4</td><td>NE</td><td>71.3</td><td>NE</td><td>41.2</td><td>NE </td><td>25.8</td><td>NE</td><td>109</td></td<>	Parameter List USEPA Method 6010 & 7471 Aluminum	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos	P01 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos	P02 5	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Beryllium mg/kg 0.19 J 0.23 BJ Cadmium mg/kg 0.22 J 0.22 B Calcium mg/kg 80100 J 85800 Chromium mg/kg 13.7 J 30.4 I Cobalt mg/kg 4.4 J 4.9 J Coper mg/kg 28.9 J 82.1 I Incomplete Incomplet	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660	PO1 5 4 10 site J	SB-DUF SB-05 0-4 1/19/20 Compos 5450	P02 5	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Cadmium mg/kg 0.22 J 0.22 B Calcium mg/kg 80100 J 88800 Chromium mg/kg 13.7 J 30.4 Cobalt mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 I Iron mg/kg 12600 11500 I	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660	P01 5 4 10 site UJ J	SB-DUF SB-05 0-4 1/19/20 Compos 5450	P02 5	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Calcium mg/kg 80100 J 85800 Chromium mg/kg 13.7 J 30.4 Cobalt mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 I Iron mg/kg 12600 11500 I	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38	P01 5 4 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3	P02 5 10 site UJ	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Chromium mg/kg 13.7 J 30.4 Cobalt mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 Iron mg/kg 12600 11500 1 Lead mg/kg 37.8 J 55.2 Magnesium Mg/kg 2300 J 22400 J Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 939 Selenium mg/kg 0.76 0.38 Selenium mg/kg 0.76 0.38 Selenium mg/kg 316 101 J Thallium mg/kg 9.7 J 13.1 I I.6 I.6 I.6 I.6 I.6 I.6 I.6 I.6 I.6 I.6 <t< td=""><td>Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium</td><td>Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg</td><td>SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19</td><td>P01 5 10 Site J UJ J J J J J J J </td><td>SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23</td><td>PO2 5 10 site UJ J BJ</td><td>148</td><td>NE</td><td>34.9</td><td>NE</td><td>50</td><td>NE</td><td>47.4</td><td>NE</td><td>71.3</td><td>NE</td><td>41.2</td><td>NE</td><td>25.8</td><td>NE</td><td>109</td></t<>	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19	P01 5 10 Site J UJ J J J J J J J	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23	PO2 5 10 site UJ J BJ	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Cobalt mg/kg 4.4 J 4.9 J Copper mg/kg 28.9 J 82.1 Iron mg/kg 12600 11500 Lead mg/kg 37.8 J 55.2 Magnesium mg/kg 22300 J 22400 J Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 J Selenium mg/kg 0.76 0.38 S Sodium mg/kg 316 101 J Thallium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22	P01 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23 0.22	PO2 5 10 site UJ J BJ	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Copper mg/kg 28.9 J 82.1 Iron mg/kg 12600 11500 Lead mg/kg 37.8 J 55.2 Magnesium mg/kg 22300 J 22400 J Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 Selenium Selenium mg/kg U U Silver mg/kg 0.76 0.38 Sodium mg/kg 316 101 J Thallium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100	P01 5 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23 0.23	PO2 5 10 site UJ J BJ	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Iron	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7	P01 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4	PO2 5 10 Site UJ J BJ B B	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Lead mg/kg 37.8 J 55.2 Magnesium mg/kg 22300 J 22400 J Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 Selenium U U U Silver mg/kg 0.76 0.38 Selenium Mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 U Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4	P01 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9	PO2 5 10 Site UJ J BJ B B	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Magnesium mg/kg 22300 J 22400 J Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 B Selenium mg/kg U U U U Silver mg/kg 0.76 0.38 S Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 U Vanadium mg/kg 9.7 J 13.1 Inch Inch Inch Inch Inch Inch Inch Inch	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9	P01 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 4.9 82.1	PO2 5 10 Site UJ J BJ B B	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Manganese mg/kg 288 J 273 J Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 J Selenium mg/kg U U U Silver mg/kg 0.76 0.38 S Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600	PO1 5 10 site	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23 0.22 85800 30.4 4.9 82.1	PO2 5 10 Site UJ J BJ B B	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Mercury mg/kg 0.19 0.14 J Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 Selenium U U U U Silver mg/kg 0.76 0.38 <td>Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead</td> <td>Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg /td> <td>SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8</td> <td>PO1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5</td> <td>SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2</td> <td>PO2 5 10 site UJ J BJ B J J J</td> <td>148</td> <td>NE</td> <td>34.9</td> <td>NE</td> <td>50</td> <td>NE</td> <td>47.4</td> <td>NE</td> <td>71.3</td> <td>NE</td> <td>41.2</td> <td>NE</td> <td>25.8</td> <td>NE</td> <td>109</td>	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8	PO1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2	PO2 5 10 site UJ J BJ B J J J	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Nickel mg/kg 11.7 J 17.7 J Potassium mg/kg 392 939 Selenium mg/kg U U Silver mg/kg 0.76 0.38 Selenium Selenium Mg/kg 1.0 J T J J T J	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300	PO1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400	PO2 5 10 site UJ J BJ B J J J J J	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Potassium mg/kg 392 939 Selenium mg/kg U U Silver mg/kg 0.76 0.38 Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288	PO1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273	PO2 5 10 site UJ J BJ B J J J J J J J J	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Selenium mg/kg U U Silver mg/kg 0.76 0.38 S Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19	PO1 5 10 Site UJ J J J J J J J J J J J J J J J J J J	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273 0.14	PO2 S 10 Site UJ J BJ B J J J J J J J J J J J J J J J	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Silver mg/kg 0.76 0.38 Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19	PO1 5 10 Site UJ J J J J J J J J J J J J J J J J J J	SB-DUF SB-02 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273 0.14	PO2 S 10 Site UJ J BJ B J J J J J J J J J J J J J J J	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE NE	25.8	NE	109
Sodium mg/kg 316 101 J Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19	001 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-DUF SB-02 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273 0.14	DO2 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Thallium mg/kg 1.4 J 1.6 Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Selenium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19	001 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-DUF SB-05	DO2 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Vanadium mg/kg 9.7 J 13.1	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Selenium Silver	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19 11.7	001 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 5.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273 0.14 17.7	DO2 Siste	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
Zinc mg/kg 59.2 J 66.7 J	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19 11.7 392	001 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB-DUF SB-05	DO2 Siste	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109
	Parameter List USEPA Method 6010 & 7471 Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	SB-DUP SB-15 12-14 1/18/20 Compos 3660 4.5 38 0.19 0.22 80100 13.7 4.4 28.9 12600 37.8 22300 288 0.19 11.7 392 0.76 316 0.76	P01 5 5 6 110 110 110 111 11 11 11 11 11 11 11 11	SB-DUF SB-05 0-4 1/19/20 Compos 5450 5.2 53.3 0.23 0.22 85800 30.4 4.9 82.1 11500 55.2 22400 273 0.14 17.7 939	DO2 Siste	148	NE	34.9	NE	50	NE	47.4	NE	71.3	NE	41.2	NE	25.8	NE	109

TABLE 3-5 POLYCHLORINATED BIPHENYL DETECTIONS IN SUBSURFACE SOIL

	Sample Location			SB-01						SB-03						SB-04				
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Part 375
	Sample Date			1/19/20	10					1/19/2010)					1/19/201	10			Unrestricted Use
Parameter List USEPA Method 8082	Sample Type			Compos	ite					Composit	e					Composi	ite			Soil Cleanup Objectives (ppm)
Aroclor-1248	mg/kg	0.17	J		U	0.047		2.8		•	U		U	32	J	NR		2.4		NA
Aroclor-1254	mg/kg	0.14	J		U		U		U		U		U		U	NR			U	NA
Total PCB	mg/kg	0.31		0		0.047		2.8		0		0		32		0		2.4		0.1
								•												
	Sample Location				S	B-05				SB-05A		SB-05B		SB-05C						Part 375
	Sample Depth (ft)	0-4		4-8		8-12		12-14		2-4		2-4		2-4						Unrestricted Use
Parameter List	Sample Date				1/19	9/2010						1/19/2010)							Soil Cleanup
USEPA Method 8082	Sample Type				Cor	nposite						Composit	е							Objectives (ppm)
Aroclor-1248	mg/kg	3		0.045			U		U	0.75		4.8		7						NA
Aroclor-1254	mg/kg		U		U		U		U		U		U		U					NA
Total PCB	mg/kg	3		0.045		0		0		0.75		4.8		7						0.1
		1																		
	Sample Location			SB-06	5					SB-07						SB-08				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/19/20	10					1/18/2010)					1/18/201	10			Soil Cleanup
USEPA Method 8082	Sample Type			Compos	ite					Composit	Э					Composi	ite			Objectives (ppm)
Aroclor-1248	mg/kg		U		U		U	5.3			U		U	0.28			U		U	NA
Aroclor-1254	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total PCB	mg/kg	0		0		0		5.3		0		0		0.28		0		0		0.1

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million. mg/kg = Milligrams per kilogram.

J = Estimated value.

U = Compound was analyzed for, but not detected.

NR = No Recovery

NA :

PCB = Polychlorinated Biphenyl.

Bold values indicate exceedence of standard.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

Old Ley Creek Channel Site (7-34-074)

TABLE 3-5 POLY	CHLORINATED BIPHENY	L DETECTIONS IN SUF	BSURFACE SOIL

	Sample Location			SB-09)					SB-10						SB-11				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date		•	1/19/20	10					1/18/2010)				•	1/18/201	0			Soil Cleanup
USEPA Method 8082	Sample Type			Compos	site					Composit	e					Composi	te			Objectives (ppm)
Aroclor-1248	mg/kg	1.4	J	39		2.3	DP	7.6		0.18		0.091		2.6	J	0.052	J		U	NA
Aroclor-1254	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total PCB	mg/kg	1.4		39		2.3		7.6		0.18		0.091		2.6		0.052		0		0.1
	Sample Location			SB-12	,					SB-13						SB-14				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-24		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/18/20	10	12 11				1/18/2010)	12 2 .		. 0		1/18/201	0	12 11		Soil Cleanup
USEPA Method 8082	Sample Type	1		Compos						Composit						Composi				Objectives (ppm)
Aroclor-1248	mg/kg	0.071			U	1		0.2		0.52		0.045			U		U		U	NA
Aroclor-1254	mg/kg		U		U		U		U		U				U		U		U	NA
Total PCB	mg/kg	0.071		0		1		0.2		0.52		0.045		0		0		0		0.1
	Sample Location			SB-15	5					SB-16						SB-17				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/18/20	10					1/18/2010)					1/19/201	0			Soil Cleanup
	Sample Type			Compos	site					Composit	e					Composi	te			Objectives (ppm)
USEPA Method 8082			_	22	Y	1.2	Ţ	0.54		0.059		0.13		1.4		0.12			U	NA
USEPA Method 8082 Aroclor-1248	mg/kg	0.23		23	J	1.2	,	0.54		0.057						0.12			U	INA
		0.23	U	23	U	1.2	U	0.54	U	0.037	U	0.13	U		U	0.068	U		U	NA NA

TABLE 3-5 POLYCHLORINATED BIPHENYL DETECTIONS IN SUBSURFACE SOIL

		1		TITELLU		or criboru.	11112	DITTIES (T		TECTIONS	. , ,, ,	DD C I II I I C	3501							
	Sample Location			SB-18	3					SB-19						SB-20				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		0-4		4-8		8-12		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/19/2010						1/19/2010	,					1/19/201	0			Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composite	2					Composi	te			Objectives (ppm)
Aroclor-1248	mg/kg	NA		0.044			U	5			U		U		U	0.35		28		NA
Aroclor-1254	mg/kg	NA			U		U		U		U		U		U		U		U	NA
Total PCB	mg/kg	0		0.044		0		5		0		0		0		0.35		28		0.1
	•																			
	Sample Location			MW-0	1					MW-02						MW-03	2			Part 375
	Sample Depth (ft)	2-6		6-10		10-14		2-6		6-10		10-14		2-6		6-10	,	10-14		Unrestricted Use
Parameter List	Sample Date			4/27/20	10					4/26/2010)					4/26/201	.0			Soil Cleanup
USEPA Method 8082	Sample Type			Compos	ite					Composite	9					Composi	te			Objectives (ppm)
Aroclor-1248	mg/kg	2.4		0.25		0.89		1.7		0.57				16		3.9		0.27		NA
Aroclor-1254	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total PCB	mg/kg	2.4		0.25		0.89		1.7		0.57				16		3.9		0.27		0.1
								•												
		SB-DUP)1	SB-DUP0)2															
	Sample Location	SB-15		SB-05																Part 375
	Sample Depth (ft)	12-14		0-4																Unrestricted Use
Parameter List	Sample Date	1/18/201		1/19/2010																Soil Cleanup
USEPA Method 8082	Sample Type	Composi	te	Composit	te															Objectives (ppm)
Aroclor-1248	mg/kg	1.3	J	2.5																NA
Aroclor-1254	mg/kg		U		U															NA
Total PCB	mg/kg	1.3		2.5																0.1

TABLE 3-6 PESTICIDE DETECTIONS IN SUBSURFACE SOIL

		1																	
	Sample Location			SB-01					SB-03						SB-04				l
	Sample Depth (ft)	4-8		8-12		12-14	4-8		8-12		12-14		4-8		8-12		12-14		Part 375
	Sample Date			1/19/2010					1/19/2010						1/19/201	0			Unrestricted Use
Parameter List USEPA Method 8081	Sample Type			Composite					Composite						Composit	ie			Soil Cleanup Objectives (ppm)
4,4'-DDD	mg/kg	0.0077	J	U	J	U		U	U			U	1	U	NR			U	0.0033
4,4'-DDE	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.0033
4,4'-DDT	mg/kg	0.0087	J	U	J	U		U	U			U	1	U	NR			U	0.0033
alpha-Chlordane	mg/kg		U	U	J	U		U	U			U	ı	U	NR			U	0.094
beta-BHC	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.036
delta-BHC	mg/kg	0.0023	J	U	J	U	0.075		U			U	1.8		NR		0.15		0.04
Dieldrin	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.005
Endosulfan I	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	2.4
Endosulfan sulfate	mg/kg	0.02	J	U	J	U		U	U	ſ		U	1	U	NR			U	2.4
Endrin	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.014
Endrin aldehyde	mg/kg	0.008	J	U	J	U		U	U			U	1	U	NR			U	
Endrin ketone	mg/kg	0.016	J	U	J	U		U	U			U	1	U	NR			U	
gamma-BHC (Lindane)	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.1
gamma-Chlordane	mg/kg	0.0027	J	U	J	U		U	U			U	1	U	NR			U	
Heptachlor	mg/kg		U	U	J	U		U	U			U	1	U	NR			U	0.042
Heptachlor epoxide	mg/kg	0.0027	J	U	J	0.0023 P	0.13		U			U	1.3		NR		0.13		
Methoxychlor	mg/kg		U	U	JΤ	U		U	U	Т		U	1	υŢ	NR			U	

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million. 4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

mg/kg = Milligrams per kilogram.

= Estimated value.

U = Compound was analyzed for, but not detected.

NR = No Recovery

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene 4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

Bold values indicate exceedence of standard.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

					T	ABLE 3-6 PES	STICI	DE DETECTI	ONS I	IN SUBSURF	ACE	SOIL								
	Sample Location				SI	B-05				SB-05A		SB-05B		SB-05C						Part 375
	Sample Depth (ft)	0-4		4-8		8-12		12-14		2-4		2-4		2-4	\neg					Unrestricted Use
Parameter List	Sample Date				1/10	9/2010		12 11				1/19/2010)		\neg					Soil Cleanup
USEPA Method 8081	Sample Type					nposite						Composit			ヿ					Objectives (ppm)
4,4'-DDD	mg/kg	0.013	J		U		U		U		UJ	0.03	J	0.035	J					0.0033
4,4'-DDE	mg/kg	0.03	J		U		U		U		UJ	0.045	J	0.062	J					0.0033
4,4'-DDT	mg/kg	0.034	J		U		U		U	0.013	J	0.044	J	0.051	J					0.0033
alpha-Chlordane	mg/kg	0.014	J		U		U		U	0.0022	J		UJ		U					0.094
beta-BHC	mg/kg	0.03	J		U		U		U	0.0065	J	0.0038	J	0.0029	J					0.036
delta-BHC	mg/kg		U		U		U		U		UJ		UJ		U					0.04
Dieldrin	mg/kg	0.011	J		U		U		U		UJ	0.019	J	0.023	J					0,005
Endosulfan I	mg/kg	0.005	J		U		U		U	0.0024	J	0.0075	J	0.0084	J					2.4
Endosulfan sulfate	mg/kg	0.025	J	0.0038	J	0.0042			U	0.0068	J	0.0057	J	0.01	J					2.4
Endrin	mg/kg	0.0093	J		U		U		U		UJ		UJ	0.0064	J					0.014
Endrin aldehyde	mg/kg	0.019	1		Ü		U		U	0.0069	J	0.0059	J	0.0061	J					
Endrin ketone	mg/kg	0.0098	J		U		U		U	0.01	J		UJ		U					
gamma-BHC (Lindane)	mg/kg	0.0099	J		U		U		U	0.0022	J	0.0019	J	0.0052	J					0.1
gamma-Chlordane	mg/kg		U	0.01		0.0066	J		U		UJ		UJ		U					
Heptachlor	mg/kg	0.0043	J		U		U		U		UJ		UJ		U					0.042
Heptachlor epoxide	mg/kg		U		U		U		U		UJ		UJ		U					
Methoxychlor	mg/kg	0.065	J		U		U		U		UJ		UJ		U					
	Sample Location			SB-06						SB-07						SB-08				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/19/201	0					1/18/201						1/18/2010				Soil Cleanup
USEPA Method 8081	Sample Type			Composi	te					Composi	te					Composite	•			Objectives (ppm)
4,4'-DDD	mg/kg		U		U		U		U		U		U		U		U		U	0.0033
4,4'-DDE	mg/kg		U		U		U		U		U		U		U		U		U	0.0033
4,4'-DDT	mg/kg		U		U		U		U		U		U		U		U		U	0.0033
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.094
beta-BHC	mg/kg		U		U		U		U		U		U		U		U		U	0.036
delta-BHC	mg/kg		U		U		U	0.33			U		U		U		U		U	0.04
Dieldrin	mg/kg		U		U		U		U		U		U		U		U		U	0.005
Endosulfan I	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endrin	mg/kg		U		U		U		U		U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U		U		U		U		U		U		U		U		U	
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U	-	U		U		U		U		U	0.1
gamma-Chlordane																				
0	mg/kg		U		U		U		U		U		U		U		U		U	
Heptachlor	mg/kg mg/kg		U		U		U		U U		U		U		U		U		U	0.042
					_			0.32												

Remedial Investigation Report

TABLE 3.6 DESTICIDE DETECTIONS IN SUBSUIDEACE SOIL

					17	ADLE 3-0 FE	STICE	DE DETECTI	CNO	IN SUBSURF	ACE	SOIL								
	Commis I asstice			SB-09						SB-10						SB-11				
	Sample Location Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12		12-14		4-8		8-12		12-14		Part 375
Parameter List	Sample Depth (it)	4-0		1/19/201	0	12-14		4-0		1/18/2010)	12-14		4-0		1/18/201	0	12-14		Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Type			Composi						Composit						Composi				Objectives (ppm)
4,4'-DDD	mg/kg		U	Composi	U	0.01	J	l	U	Composit	U		U		U	Composi	U		U	0.0033
4.4'-DDE	mg/kg		U		U	0.012	,		U		U		U	0.04	U		U		U	0.0033
4,4'-DDT	mg/kg		U		U	0.012			U		U		U	0.044			U		U	0.0033
alpha-Chlordane	mg/kg		U		U	0.012	U		U		U		U	0.044	U		U		U	0.094
beta-BHC	mg/kg		U		U		U		U		U		U	0.0078	I		U		U	0.036
delta-BHC	mg/kg	0.098		1.3	Ü		U	0.37		0.0064	0	0.0031	U	0.3	D		U		U	0.04
Dieldrin	mg/kg	0.050	U	1.0	U	0.0058	J	0.57	U	0.0004	U	0.0031	U	0.018	J		U		U	0.005
Endosulfan I	mg/kg		U		U	0.0046	J		U		U		U	0.013	J		U		U	2.4
Endosulfan sulfate	mg/kg		U		U	0.0040	U		U		U		U	0.013	U		U		U	2.4
Endrin	mg/kg	1	U		U		U		U		U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U		U		U		U		U		U		U		U		U	0.014
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U		U		U		U		U		U	0.1
gamma-Chlordane	mg/kg		U		U	0.0028	J		U		U		U		U		U		U	
Heptachlor	mg/kg		U		U	0.0078	I		U		U		U	0.02	I		U		U	0.042
Heptachlor epoxide	mg/kg	0.079		1.1	Ŭ	0.0070	U	0.36	Ŭ	0.0092		0.0044	_	0.2	D		U		U	
Methoxychlor	mg/kg	0.077	U		U		Ü	0.50	U	0.0072	U	0.0011	U	0.2	U		Ü		Ü	
	mg/kg		U	<u> </u>	0		U		10		U		0		U		U			
	Sample Location			SB-12						SB-13	U				LO	SB-14	U			Part 375
	Sample Location Sample Depth (ft)	4-8		8-12		12-14	0	4-8	0	8-12		12-24	0	4-8		8-12		12-14		Part 375 Unrestricted Use
Parameter List	Sample Location Sample Depth (ft) Sample Date	4-8		8-12 1/18/201	10	12-14	0	4-8		8-12 1/18/2010)	12-24	0	4-8		8-12 1/18/201	0	12-14		Part 375 Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Location Sample Depth (ft) Sample Date Sample Type	4-8		8-12	10	12-14		4-8		8-12) e	12-24		4-8		8-12	0 te	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8081 4,4'-DDD	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U	8-12 1/18/201	10 ite	12-14	U	4-8	U	8-12 1/18/2010) e	12-24	U	4-8	U	8-12 1/18/201	0 te	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	4-8	UUU	8-12 1/18/201	ite U U	12-14	U	4-8	U	8-12 1/18/2010	o e U	12-24	U	4-8	U	8-12 1/18/201	0 te U	12-14	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	4-8	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/201	ite U U	12-14	U U U	4-8	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/2010	U U U	12-24	U U U	4-8	U U U	8-12 1/18/201	0 te U U U	12-14	UUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	4-8	U U U	8-12 1/18/201	U U U	12-14	U U U	4-8	U U U	8-12 1/18/2010	U U U	12-24	U U U	4-8	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/201	O te U U U U	12-14	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	4-8	U U U U U	8-12 1/18/201	U U U U		U U U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	8-12 1/18/2010 Composite	U U U	12-24	U U U U	4-8	U U U U	8-12 1/18/201	0 te U U U U U U	12-14	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4-8	U U U U U U U	8-12 1/18/201	U U U U U	0.018	U U U U	0.0042	U U U U	8-12 1/18/2010	U U U U U	12-24	U U U U U	4-8	U U U U	8-12 1/18/201	O te U U U U U U U	12-14	U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U U U U U U	8-12 1/18/201	tte U U U U U U U		U U U U U		U U U U U U	8-12 1/18/2010 Composite	U U U U U	12-24	U U U U U U	4-8	U U U U U U U U	8-12 1/18/201	O tee U U U U U U U U U U	12-14	U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U U U U U U U U U	8-12 1/18/201	U U U U U U U		U U U U U			8-12 1/18/2010 Composite	U U U U U	12-24	U U U U U U U	4-8		8-12 1/18/201 Composi	O te U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U U U U U U U U U U U	8-12 1/18/201	U U U U U U U U U U U U U U U U U U U					8-12 1/18/2010 Composite	U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	4-8		8-12 1/18/201	O te U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4
USEPA Method 8081 4,4'-DDD 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U				U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	4-8		8-12 1/18/201 Composi	O te U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4'-DDD 4,4'-DDT 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/18/201	U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U U U U U U U		U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	4-8		8-12 1/18/201 Composi	0 U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04 2.4 0.014
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U				U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U	12-24		4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/18/201 Composi	0 tte U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4'-DDD 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin aldehyde gamma-BHC (Lindane)	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U				U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U U U U U U U	12-24		4-8		8-12 1/18/201 Composi	0 tte U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0094 0.036 0.04 0.005 2.4 2.4 0.014 0.01
USEPA Method 8081 4,4'-DDD 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U				U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U U U U U U U U U	12-24		4-8		8-12 1/18/201 Composi	0 te U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 0.014 0.1
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-BHC (Lindane) Heptachlor	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U	0.018		0.0042	U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U U U U U U U	12-24		4-8		8-12 1/18/201 Composi	0 te U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014 0.1 0.042
USEPA Method 8081 4,4'-DDD 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	4-8		8-12 1/18/201	U U U U U U U U U U U U U U U U U U U				U U U U U U U U U U U U U U U U U	8-12 1/18/2010 Composite	U U U U U U U U U U U U U U U U U U U	12-24		4-8		8-12 1/18/201 Composi	0 te U U U U U U U U U U U U U U U U U U	12-14		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 0.014 0.1

Remedial Investigation Report

					IAI	3LE 3-0 PES	ICID	E DETECTI	CNO	IN SUBSURFAC	E SOIL								
	Sample Location			SB-15	;					SB-16					SB-17				Part 375
	Sample Depth (ft)	4-8		8-12		12-14		4-8		8-12	12-14		4-8		8-12		12-14		Unrestricted Use
Parameter List	Sample Date			1/18/20	10					1/18/2010					1/19/201	0			Soil Cleanup
USEPA Method 8081	Sample Type			Compos	ite					Composite					Composit	te			Objectives (ppm)
4,4'-DDD	mg/kg	0.01	J	-	U		U		U	U		U		U	-	U		U	0.0033
4,4'-DDE	mg/kg	0.005			U		U		U	U		U		U		U		U	0.0033
4,4'-DDT	mg/kg	0.0099			U		U		U	U		U		U		U		U	0.0033
alpha-Chlordane	mg/kg		U		U		U		U	U		U		U		U		U	0.094
beta-BHC	mg/kg		U		U		U		U	U		U		U		U		U	0.036
delta-BHC	mg/kg	0.0032	J	2.1		0.13		0.012		U	0.0025		0.031			U		U	0.04
Dieldrin	mg/kg		U		U		U		U	U		U		U		U		U	0.005
Endosulfan I	mg/kg		U		U		U		U	U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg		U		U		U		U	U		U		U		U		U	2.4
Endrin	mg/kg		U		U		U		U	U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U		U		U		U	U		U		U		U		U	
Endrin ketone	mg/kg		U		U		U		U	U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U	U		U		U		U		U	0.1
gamma-Chlordane	mg/kg	0.004	J		U		U		U	U		U		U		U		U	
Heptachlor	mg/kg		U		U		U	0.0025		U		U		U		U		U	0.042
Heptachlor epoxide	mg/kg	0.011		1.4		0.067		0.03		0.0031	0.0064		0.072		0.0065			U	
Methoxychlor	mg/kg		U		U		U		U	U		U		U		U		U	
Methoxychlor	mg/kg		U		U		U		U	U		U		U		U		U	
Methoxychlor	mg/kg		U		U		U		U	U		U		U		U		U	
Methoxychlor	Sample Location		U	SB-18			U		U	SB-19		U		U	SB-20	U			 Part 375
Methoxychlor		4-8	U	8-12		12-14	U	0-4	U	SB-19 4-8	8-12	U	4-8	U	8-12		12-14		
Methoxychlor Parameter List	Sample Location Sample Depth (ft) Sample Date	4-8	U			12-14	U	0-4	U	SB-19 4-8 1/19/2010	8-12	U		U			12-14		Part 375
	Sample Location Sample Depth (ft)	4-8	U	8-12	3	12-14	U	0-4	U	SB-19 4-8	8-12	U		U	8-12	0	12-14		Part 375 Unrestricted Use
Parameter List USEPA Method 8081 4,4'-DDD	Sample Location Sample Depth (ft) Sample Date	NR	U	8-12 1/19/2010	3	12-14	U	0.045	U	SB-19 4-8 1/19/2010 Composite U	8-12	U	4-8	U	8-12 1/19/201 Composit	0			Part 375 Unrestricted Use Soil Cleanup
Parameter List USEPA Method 8081	Sample Location Sample Depth (ft) Sample Date Sample Type		U	8-12 1/19/2010	3	12-14				SB-19 4-8 1/19/2010 Composite	8-12		4-8		8-12 1/19/201	0 te	0.22		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Parameter List USEPA Method 8081 4,4'-DDD	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR NR	U	8-12 1/19/2010	U U U	12-14	U	0.045	J	SB-19 4-8 1/19/2010 Composite U U U	8-12	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	4-8	U U U	8-12 1/19/201 Composit	0 te		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg	NR NR NR NR	U	8-12 1/19/2010	U	12-14	U	0.045 0.046 0.061		SB-19 4-8 1/19/2010 Composite U	8-12	U	4-8	U	8-12 1/19/201 Composit 0.0079	0 te	0.22		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg	NR NR NR	U	8-12 1/19/2010	U U U	12-14	U U U	0.045 0.046	J	SB-19 4-8 1/19/2010 Composite U U U	8-12	U U U U	4-8	U U U	8-12 1/19/201 Composit 0.0079	0 te U	0.22	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	NR NR NR NR	U	8-12 1/19/2010	บ บ บ	12-14	U U U	0.045 0.046 0.061	J	SB-19 4-8 1/19/2010 Composite U U U U U	8-12	U U U	4-8	U U U U	8-12 1/19/201 Composit 0.0079	0 te U	0.22	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT 4,4'-DDT alpha-Chlordane beta-BHC	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR	U	8-12 1/19/2010	U U U U	12-14	U U U U	0.045 0.046 0.061	J	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U	8-12	U U U U	4-8	U U U U U U	8-12 1/19/201 Composit 0.0079	0 te U U U	0.22	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR	U	8-12 1/19/2010	U U U U U	12-14	U U U U U	0.045 0.046 0.061 0.0034	J	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U	8-12	U U U U U U	4-8	U U U U U U U	8-12 1/19/201 Composit 0.0079	O te U U U U U	0.22	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NR NR NR NR NR NR NR NR	U	8-12 1/19/2010		12-14	U U U U U U U U	0.045 0.046 0.061 0.0034	1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12	U U U U U U U U U	4-8	U U U U U U U U U U	8-12 1/19/201 Composit 0.0079	O te U U U U U U U	0.22 0.19	U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR NR NR NR NR NR NR NR	U	8-12 1/19/2010		12-14	U U U U U U U	0.045 0.046 0.061 0.0034	1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.0079	O te U U U U U U U U	0.22 0.19	1	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR		8-12 1/19/2010		12-14		0.045 0.046 0.061 0.0034 0.023 0.01	1 1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		8-12 1/19/201 Composit 0.0079	U U U U U U U U U U U U	0.22 0.19	U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 2.4 2.4
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR	U	8-12 1/19/2010		12-14		0.045 0.046 0.061 0.0034 0.023 0.01	1 1 1 1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.0079	0 U U U U U U U	0.22 0.19	U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR	U	8-12 1/19/2010		12-14	U U U U U U U U U U U U U U U U U U U	0.045 0.046 0.061 0.0034 0.023 0.01	1 1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		8-12 1/19/201 Composit 0.0079	U U U U U U U U U U U U	0.22 0.19	U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR N	U	8-12 1/19/2010		12-14		0.045 0.046 0.061 0.0034 0.023 0.01	1 1 1 1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.0079	0 U U U U U U U	0.22 0.19		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0034 0.036 0.04 0.005 2.4 2.4 0.014
Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin letone gamma-BHC (Lindane)	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg	NR	U	8-12 1/19/2010		12-14		0.045 0.046 0.061 0.0034 0.023 0.01	1 U U U U U U U U U U U U U U U U U U U	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8	U U U U U U U U U U U U U U U U U U U	8-12 1/19/201 Composit 0.0079	0 te U U U U U U U	0.22 0.19		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014 0.01
Parameter List USEPA Method 8081 4.4'-DDD 4.4'-DDE 4.4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane	Sample Location Sample Depth (ft) Sample Date Sample Type mg/kg NR N		8-12 1/19/2010		12-14		0.045 0.046 0.061 0.0034 0.023 0.01	1 1 1 1 1 1 1 1 1 1	SB-19 4-8 1/19/2010 Composite U U U U U U U U U U U U U U U U U U U	8-12		4-8		8-12 1/19/201 Composit 0.0079	0 tee U U U U U U U U U U U U U U U U U U	0.22 0.19		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0934 0.036 0.04 0.005 2.4 0.014 0.1	

Old Ley Creek Channel Site (7-34-074) Town of Salina, New York Remedial Investigation Report

					TAI	BLE 3-6 PES	HULL	E DETECTI	ONS	IN SUBSURI	FACI	E SOIL								
	Sample Location			MW-0	1					MW-02						MW-03	3			Part 375
	Sample Depth (ft)	2-6		6-10		10-14		2-6		6-10		10-14		2-6		6-10		10-14		Unrestricted Use
Parameter List	Sample Date			4/27/20	10					4/26/2010)					4/26/201	10			Soil Cleanup
USEPA Method 8081	Sample Type			Compos	ite					Composite	е					Composi	ite			Objectives (ppm)
4,4'-DDD	mg/kg		U		U		U	0.0087			U		U		U		U		U	0.0033
4,4'-DDE	mg/kg		U		U		U	0.0093			U		U	0.1			U		U	0.0033
4,4'-DDT	mg/kg		U		U		U	0.0093	P		U		U	0.11			U		U	0.0033
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.094
beta-BHC	mg/kg		U		U		U	0.0021		0.0022			U		U		U		U	0.036
delta-BHC	mg/kg	0.034			U		U	0.017		0.0061			U	0.22		0.054			U	0.04
Dieldrin	mg/kg		U		U		U		U		U		U		U		U		U	0.005
Endosulfan I	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg		U	0.0044	P		U		U		U		U		U		U		U	2.4
Endrin	mg/kg		U		U		U		U		U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U		U		U		U		U		U		U		U		U	
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U		U		U		U		U		U	0.1
gamma-Chlordane	mg/kg		U		U	0.0031	P	0.011	P	0.015			U	0.1	P		U		U	
Heptachlor	mg/kg		U		U		U		U		U		U		U		U		U	0.042
Heptachlor epoxide	mg/kg		U		U		U		U		U		U	0.13	P	0.031	P		U	
Methoxychlor	mg/kg		U		U		U		U		U		U		U		U		U	
								•										•		
		SB-DUP()1	SB-DUP0	2															
	Sample Location	SB-15		SB-05																Part 375
	Sample Depth (ft)	12-14																		Part 3/3
Parameter List				0-4																Unrestricted Use
USEPA Method 8081	Sample Date	1/18/201		1/19/201																Unrestricted Use Soil Cleanup
	Sample Type		te	1/19/201 Composit																Unrestricted Use Soil Cleanup Objectives (ppm)
4,4'-DDD	Sample Type mg/kg	1/18/201	te U	1/19/201 Composit 0.0075																Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
4,4'-DDE	Sample Type	1/18/201	te U U	1/19/2010 Composit 0.0075 0.022	ie															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
4,4'-DDE 4,4'-DDT	Sample Type mg/kg mg/kg mg/kg	1/18/201	te U U	1/19/201 Composit 0.0075 0.022 0.026	e J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
4,4'-DDE 4,4'-DDT alpha-Chlordane	Sample Type mg/kg mg/kg	1/18/201	te U U U	1/19/201 Composit 0.0075 0.022 0.026 0.0048	e J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC	Sample Type mg/kg mg/kg mg/kg	1/18/201 Composi	te U U	1/19/201 Composit 0.0075 0.022 0.026	e J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC	Sample Type mg/kg mg/kg mg/kg mg/kg	1/18/201	U U U U U	1/19/201: Composit 0.0075 0.022 0.026 0.0048 0.02	e J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi	U U U U U U	1/19/2010 Compositi 0.0075 0.022 0.026 0.0048 0.02	e J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094
4,4-DDE 4,4-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201: Composit 0.0075 0.022 0.026 0.0048 0.02	ј ј ј															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1/18/201 Composi	U U U U U U U U U U	1/19/201 Composit 0.0075 0.022 0.026 0.0048 0.02 0.0084 0.0033 0.014	J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04
4.4'-DDE 4.4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin	Sample Type mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066	J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.094 0.036 0.04
4,4-DDE 4,4-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde	Sample Type mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 2.4 2.4
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone	Sample Type mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.0022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane)	Sample Type mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0094 0.036 0.04 0.005 2.4 2.4 0.014
4.4'-DDE 4.4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane	Sample Type mg/kg 1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.0022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.094 0.036 0.04 0.005 2.4 2.4 0.014	
4,4'-DDE 4,4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan sulfate Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane Heptachlor	Sample Type mg/kg	1/18/201 Composi 0.11	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.0022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0034 0.0036 0.004 0.005 2.4 0.014 0.014 0.014 0.1
4.4'-DDE 4.4'-DDT alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-Chlordane	Sample Type mg/kg	1/18/201 Composi	U U U U U U U U U U U U U U U U U U U	1/19/201 Composit 0.0075 0.0022 0.026 0.0048 0.02 0.0084 0.0033 0.014 0.0066 0.0089	J J J J J															Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0036 0.094 0.0036 2.4 0.0014 0.014 0.11

	Sample Location			SS-01						SS-02						SS-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375
	Sample Date			1/12/2010						1/12/201	0					1/12/2010	1			Unrestricted Use
Parameter List	6 1 7			a :												<i>a</i> :				Soil Cleanup
USEPA Method 8260	Sample Type			Composite						Composit	_	1				Composite			_	Objectives (ppm)
1,1,1-Trichloroethane	mg/kg		U		U		U		U		U		U		U		U		U	0.68
2-Butanone	mg/kg		U		U		U		U		U		U		U		U		U	
Acetone	mg/kg		U		U		U		U		U		U		U		U		U	0.05
Carbon disulfide	mg/kg		U	1	U		U		U		U		U		U		U		U	
Chloroform	mg/kg		U		U		U		U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U		U		U		U		U		U		U		U		U	0.25
Methylene chloride	mg/kg	0.005	J	0.0051			U	0.0046	J	0.006		0.0095		0.0044	J	0.002	J	0.0045	J	0.05
Naphthalene	mg/kg		U		U		U		U		U		U		U		U		U	12
Tetrachloroethene	mg/kg		U		U		U		U		U		U		U		U		U	1.3
Trichloroethene	mg/kg		U		U		U		U		U		U		U		U		U	0.47
																			_	
	Sample Location			SS-04						SS-05						SS-06				Part 375
	Sample Location Sample Depth (in)	0-6		SS-04 6-12		12-24		0-6		SS-05 6-12		12-24		0-6	1	SS-06 6-12		12-24		Part 375 Unrestricted Use
Parameter List		0-6			1	12-24		0-6			0	12-24		0-6				12-24		
Parameter List USEPA Method 8260	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use
	Sample Depth (in) Sample Date	0-6	U	6-12 1/12/2010 Composite	U		U	0-6	U	6-12 1/12/201		12-24	U	0-6	U	6-12 1/12/2010		12-24	U	Unrestricted Use Soil Cleanup
USEPA Method 8260	Sample Depth (in) Sample Date Sample Type	0-6	U	6-12 1/12/2010 Composite	U		U	0-6	U	6-12 1/12/201	e	12-24	U	0-6	U	6-12 1/12/2010	,	12-24	U	Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8260 1,1,1-Trichloroethane	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/12/2010 Composite	_			0-6		6-12 1/12/201	e U	12-24		0-6		6-12 1/12/2010	U	12-24	_	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	0-6	U	6-12 1/12/2010 Composite	U		U	0-6	U	6-12 1/12/201	e U U	12-24	U	0-6	U	6-12 1/12/2010	U	12-24	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	0-6	U	6-12 1/12/2010 Composite	U U		U U	0-6	U U	6-12 1/12/201	U U U	12-24	U U	0-6	U U	6-12 1/12/2010	U U U	12-24	U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	0-6	U U U	6-12 1/12/2010 Composite	U U U		U U U	0-6	U U U	6-12 1/12/201	U U U U	12-24	U U U	0-6	U U U	6-12 1/12/2010	U U U	12-24	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U U U	6-12 1/12/2010 Composite	U U U		U U U U	0.0015	U U U	6-12 1/12/201	U U U U U	12-24	U U U	0-6	U U U U	6-12 1/12/2010	U U U U	12-24	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37
USEPA Method 8260 1.1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U U U	6-12 1/12/2010 Composite	U U U	0.0029	U U U U		U U U	6-12 1/12/201 Composit	U U U U U	12-24	U U U U		U U U U	6-12 1/12/2010 Composite	U U U U	12-24	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25
USEPA Method 8260 1.1.1.Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1.2-Dichloroethene Methylene chloride	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U U U	6-12 1/12/2010 Composite	U U U U	0.0029	U U U U U		U U U U U	6-12 1/12/201 Composit	U U U U U U	12-24	U U U U		U U U U	6-12 1/12/2010 Composite	U U U U U U	12-24	U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05
USEPA Method 8260 1.1.1.Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	U U U U U U	6-12 1/12/2010 Composite	U U U U U U U U U U U U U U U U U U U	0.0029	U U U U U U U U U U U U U U U U U U U		U U U U U U	6-12 1/12/201 Composit	U U U U U U U	12-24	U U U U U U		U U U U U U U U U U U U U U U U U U U	6-12 1/12/2010 Composite	U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.

mg/kg = Milligrams per kilogram.

U = Compound was note analyzed for, but not detected.

J = Estimated value.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives

				TABLE 3-7	VOI	ATILE ORG	ANI	C COMPOUND DE	TECTIONS 1	IN SU	JRFACE SOIL								
	Sample Location			SS-07					SS-08						SS-09				Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6	6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			1/12/2010		•			1/13/2010)					1/13/2010	•			Soil Cleanup
USEPA Method 8260	Sample Type			Composite					Composit	e					Composite	:			Objectives (ppm)
1,1,1-Trichloroethane	mg/kg		U		U		U	U		U		U		U		U		U	0.68
2-Butanone	mg/kg		U		U		U	U		U		U		U		U	ĺ	U	
Acetone	mg/kg		U		U		U	U		U		U		U		U	ĺ	U	0.05
Carbon disulfide	mg/kg		U		U		U	U		U		U		U		U	ĺ	U	
Chloroform	mg/kg		U		U		U	U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U		U		U	U		U		U		U		U		U	0.25
Methylene chloride	mg/kg	0.0023	J	0.0055	J		U	U		U		U		U		U		U	0.05
Naphthalene	mg/kg		U		U		U	U		U		U		U		U		U	12
Tetrachloroethene	mg/kg		U		U		U	U		U		U		U		U		U	1.3
Trichloroethene	mg/kg		U		U		U	U		U		U		U		U		U	0.47
	Sample Location			SS-10					SS-11						SS-12				Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6	6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			1/13/2010					1/13/2010)					1/13/2010				Soil Cleanup
USEPA Method 8260	Sample Type			Composite					Composit	e					Composite	;			Objectives (ppm)
1,1,1-Trichloroethane	mg/kg		U	NR		NR		U		U		U		U		U		U	0.68
2-Butanone	mg/kg		U	NR		NR		U		U		U		U		U		U	
Acetone	mg/kg		U	NR		NR		U		U		U		U		U		U	0.05
Carbon disulfide	mg/kg		U	NR		NR		U		U		U		U		U		U	
Chloroform	mg/kg		U		U		U	U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U	NR		NR		U		U		U		U		U		U	0.25
Methylene chloride	mg/kg		U	NR		NR		U		U		U		U		U		U	0.05
Naphthalene	mg/kg		U		U		U	U		U		U		U		U		U	12
Tetrachloroethene	mg/kg		U	NR		NR		U		U		U		U		U		U	1.3
Trichloroethene	mg/kg		U	NR		NR		U		U		U		U		U		U	0.47
	Sample Location			SS-13					SS-14						SS-15				Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6	6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			1/13/2010					1/13/2010)					1/13/2010	-			Soil Cleanup
USEPA Method 8260	Sample Type			Composite					Composit						Composite				Objectives (ppm)
1,1,1-Trichloroethane	mg/kg		U	NR		NR		U		U		U		U		U	NR		0.68
2-Butanone	mg/kg		U	NR	Н	NR	t	U		U		U		U		U	NR		
Acetone	mg/kg		U	NR	Н	NR	t	U		U		U		U		U	NR		0.05
Carbon disulfide	mg/kg		U	NR	Н	NR	t	U		U		U		U		U	NR		
Chloroform	mg/kg		U		U		U	U		U		U		U		U		U	0.37
cis-1,2-Dichloroethene	mg/kg		U	NR	Ť	NR	Ť	U		U		U		U	0.0013	J	NR	_	0.25
Methylene chloride	mg/kg		U	NR	Н	NR	t	U		U		U		U		U	NR		0.05
Naphthalene	mg/kg		U		IJ		U	U		U		U		U		U		U	12
Tetrachloroethene	mg/kg		U	NR	Ť	NR	Ť	Ü		U		U	0.012	_	0.017	Ť	NR	_	1.3
Trichloroethene	mg/kg		U	NR		NR	t	Ü		Ü		U	0.0018	J	0.0032	J	NR		0.47
NOTE: NR = No Recovery.			•					1								_		_	~~~
110 IL. TIK - Ho Recovery.																			

Old Ley Creek Channel Site (7-34-074)

ı			TADIE 2.7 V	OLATH E ODG	ANIIC	COMPOUND DETE	CTIONS IN SU	DEACE SOIL						
				JLATILE UKG	ANIC	COMPOUND DETE		KI'ACE SUIL						
	Sample Location		SS-16				SS-17			SS-1				Part 375
	Sample Depth (in)	0-6	6-12	12-24		0-6	6-12	12-24	0-6	6-12		12-24		Unrestricted Use
Parameter List	Sample Date		1/13/2010				1/13/2010			1/13/20				Soil Cleanup
USEPA Method 8260	Sample Type		Composite				Composite			Compo				Objectives (ppm)
1,1,1-Trichloroethane	mg/kg	τ		J NR		U	U	U		U	U		J	0.68
2-Butanone	mg/kg	τ		J NR		U	U	U		U	U		J	
Acetone	mg/kg	U		J NR		U	U	U		U	U		J	0.05
Carbon disulfide	mg/kg	U		J NR		U	U	U		U	U		J	
Chloroform	mg/kg	U		J	U	U	U	U		U	U		U	0.37
cis-1,2-Dichloroethene	mg/kg	U		J NR	1	U	U	U		U	U		J	0.25
Methylene chloride	mg/kg	U		J NR	1	U	U	U		U	U		J	0.05
Naphthalene	mg/kg	U		J	U	U	U	U		U	U		U	12
Tetrachloroethene	mg/kg	U		J NR	1	U	U	U		U	U		J	1.3
Trichloroethene	mg/kg	U		J NR		U	U	U		U	U		J	0.47
	Sample Location		SS-19				SS-20			SS-2	1			Part 375
	Sample Depth (in)	0-6	6-12	12-24		0-6	6-12	12-24	0-6	6-12		12-24		Unrestricted Use
Parameter List	Sample Date		1/13/2010				1/13/2010			1/13/20	10			Soil Cleanup
USEPA Method 8260	Sample Type		Composite				Composite			Compo	site			Objectives (ppm)
1,1,1-Trichloroethane	mg/kg	U		J	J	U	0.0023 J	U		U	J	NR		0.68
2-Butanone	mg/kg	U	T I	J	J	U	U	U		U	J	NR		
Acetone	mg/kg	U	T I	J	J	U	U	U		U	J	NR		0.05
Carbon disulfide	mg/kg	U	T I	J	J	U	U	U		U	J	NR		
Chloroform	mg/kg	U	r	J	U	U	U	U		U	U		U	0.37
cis-1,2-Dichloroethene	mg/kg	U		J	J	U	U	U		U	J	NR		0.25
Methylene chloride	mg/kg	U	1	J	J	U	U	U		U	J	NR		0.05
Naphthalene	mg/kg	U		J	U	U	U	U		U	U		U	12
Tetrachloroethene	mg/kg	U	T I	J	J	U	U	U		U	J	NR		1.3
Trichloroethene	mg/kg	U		J	J	U	U	U		U	J	NR		0.47
									1					
	Sample Location		SS-22				SS-23			SS-2				Part 375
	Sample Depth (in)	0-6	6-12	12-24		0-6	6-12	12-24	0-6	6-12		12-24		Unrestricted Use
Parameter List	Sample Depth (in) Sample Date	0-6	6-12 1/13/2010	12-24			6-12 1/13/2010	12-24	0-6	6-12 1/13/20	010	12-24		Unrestricted Use Soil Cleanup
USEPA Method 8260	Sample Depth (in) Sample Date Sample Type		6-12 1/13/2010 Composite				6-12 1/13/2010 Composite			6-12 1/13/20 Compo	010 site	12-24		Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8260 1,1,1-Trichloroethane	Sample Depth (in) Sample Date Sample Type mg/kg	ľ	6-12 1/13/2010 Composite	J	U	U	6-12 1/13/2010 Composite U	U		6-12 1/13/20 Compo	010 site	12-24	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	T.	6-12 1/13/2010 Composite	U 0.023	U	U U	6-12 1/13/2010 Composite U	U		6-12 1/13/20 Compo U	o10 site U	12-24	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	U U	6-12 1/13/2010 Composite	U 0.023 U 0.078		U U U	6-12 1/13/2010 Composite U U U	U U U 0.0082 J		6-12 1/13/20 Compo U	010 site U U U	12-24	U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	U U U	6-12 1/13/2010 Composite	U 0.023 U 0.078	U	U U	6-12	U 0.0082 J 0.0022 J		6-12 1/13/20 Compo U U U	010 site U U U U	12-24	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	U U U	6-12 1/13/2010 Composite	U 0.023 U 0.078 U 0.078	U	U U U U	6-12 1/13/2010 Composite U U U U U U	U 0.0082 J 0.0022 J U		6-12 1/13/20 Compo U U U U	010 site U U U U U U	12-24	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	L L L L	6-12 1/13/2010 Composite	U 0.023 U 0.078 U 0.078	U U U	U U U U U	6-12 1/13/2010 Composite U U U U U U U U U	U U 0.0082 J 0.0022 J U		6-12 1/13/20 Compo U U U U U	010 site U U U U U U U U	12-24	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform Gis-1,2-Dichloroethene Methylene chloride	Sample Depth (in) Sample Date Sample Type mg/kg	1 1 1 1 1	6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U	U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U	0.0082 J 0.0022 J U U U U		6-12 1/13/2(Compo	D10 Site U U U U U U U U U U	12-24	U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Depth (in) Sample Date Sample Type mg/kg	L L L L L	6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U	U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U	0.0082 J 0.0022 J U U U U		6-12 1/13/20 Compo U U U U U U U U U U U U U U U U U U U	010 site U U U U U U U U U U U U U U	12-24	U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Depth (in) Sample Date Sample Type mg/kg	T	6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U	U U U U U U U U	6-12	U 0.0082 J 0.0022 J U U U U		6-12 1/13/20 Compo U U U U U U U U U U U U U U U U U U U	010 site U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene	Sample Depth (in) Sample Date Sample Type mg/kg	L L L L L	6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U	U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U	0.0082 J 0.0022 J U U U U		6-12 1/13/20 Compo U U U U U U U U U U U U U U U U U U U	010 site U U U U U U U U U U U U U U	12-24	U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Depth (in) Sample Date Sample Type mg/kg	T	6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U	U U U U U U U U	6-12	U 0.0082 J 0.0022 J U U U U		6-12 1/13/20 Compo U U U U U U U U U U U U U U U U U U U	010 site U U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Depth (in) Sample Date Sample Type mg/kg	T	6-12 1/13/2010 Composite	J 0.023 J 0.078 J 0.078	U U U U U	U U U U U U U U	6-12	U 0.0082 J 0.0022 J U U U U		6-12 1/13/20 Compo U U U U U U U U U U U U U U U U U U U	010 site	12-24	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene	Sample Depth (in) Sample Date Sample Type mg/kg	T	6-12 1/13/2010 Composite	J 0.023 J 0.078 J 0.078	U U U U U	U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U	U 0.0082 J 0.0022 J U U U U		6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 site	12-24	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47
USEPA Method 8260 1,1,1-Trichlorocthane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Parameter List	Sample Depth (in) Sample Date Sample Type mg/kg		6-12 1/13/2010 Composite SS-25 6-12 4/26/2010	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U		6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 site		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform Gis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene	Sample Depth (in) Sample Date Sample Type mg/kg		6-12 1/13/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U		6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 site		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use
USEPA Method 8260 1,1,1-Trichlorocthane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Parameter List	Sample Depth (in) Sample Date Sample Type mg/kg	L L L L L L L L L L	6-12 1/13/2010 Composite SS-25 6-12 4/26/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U U U	U U U U U U U U U U U U U U U U U U U	6-12	U U U U U U U U U U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 site		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup
USEPA Method 8260 1,1,1-Trichlorocthane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichlorocthene Methylene chloride Naphthalene Tetrachlorocthene Trichlorocthene Parameter List USEPA Method 8260	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg smg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	L L L L L L L L L L	SS-25 6-12 4/26/2010 Composite	J	U U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U U	0.0082 J 0.0022 J U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 siste		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 12 13 0.47 15 1
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform ciss-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	SS-25 6-12 4/26/2010 Composite	J	U U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U	6-12	U U U U U U U U U U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U	010 site U U U U U U U U U U U U U U U U U U		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.61 Cleanup Objectives (ppm 0.62 Cleanup Objectives (ppm 0.64 Cleanup Objectives (ppm 0.65 Cleanup 0.65 Cleanup Objectives (ppm 0.65 Cleanup 0.65
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone	Sample Depth (in) Sample Date Sample Type mg/kg	L L L L L L L L L L	SS-25 6-12 4/26/2010 Composite	J 0.023 J 0.078 J J J J J J J J J J J J J J J J J J J	U U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U U	0.0082 J 0.0022 J U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	010 siste		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.68
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone	Sample Depth (in) Sample Date Sample Type mg/kg sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	0-6	SS-25 6-12 4/26/2010 Composite	J		0-6	Composite	U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U	010 site		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.05 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform ciss-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	SS-25 6-12 4/26/2010 Composite	J	U U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composite U U U U U U U U U U U U U U U U U U	U U U U U U U U U U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U U U U U U U U U U U	U		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0-6	SS-25 6-12 4/26/2010 Composite	J		0-6	Composite	12-24	0-6	6-12 1/13/2(Compo U U U U U U U U U	010 site		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.37 0.25 0.05 12 1.3 0.47 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm 0.68 0.05 0.03 7 0.05 12 1.3 0.47 1.3
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Trichloroethene Dayanter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	SS-25 6-12 4/26/2010 Composite	J	U U U U U U U U U U U U U U U U U U U	0-6 U U U U U U U U U U U U U U U U U U U	1/13/2010 1/13/2010 U U U U U U U U U	12-24 U 0.0082 J 0.0022 J U U U U U U U U U U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U	7 7 100 100 100 100 100 100 100 100 100		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.25 0.05 0.47 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.25 0
USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Naphthalene Tetrachloroethene Trichloroethene Trichloroethene Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride	Sample Depth (in) Sample Date Sample Type mg/kg	0-6	6-12 1/13/2010 Composite SS-25 6-12 4/26/2010 Composite	J		0-6 U U U U U U U U U U U U U U U U U U	G-12	12-24 U 0.0082 J 0.0022 U U U U U U U U U U U U U U U U U U	0-6	6-12 1/13/2(Compo U U U U U U U U U	77		U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.25 0.07 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.25 0.05 0.05 0.25 0.0

	Sample Location			SS-28				S	S-29				SS-30				Part 375
	Sample Depth (in)	0-6		6-12	1	2-24	0-6	6	-12	12-24	0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			4/26/2010				4/20	5/2010				4/26/2010	0			Soil Cleanup
USEPA Method 8260	Sample Type			Composite				Con	nposite				Composit	e			Objectives (ppm)
1,1,1-Trichloroethane	mg/kg		U	1	J	U	U		U	U		U		U		U	0.68
2-Butanone	mg/kg		U	1	J	U	U		U	U		U	0.01		0.0072		
Acetone	mg/kg		U	1	J	U	U		U	U		U	0.038		0.019		0.05
Carbon disulfide	mg/kg		U	1	J	U	U		U	U		U		U		U	
Chloroform	mg/kg		U	1	J	U	U		U	U		U		U		U	
cis-1,2-Dichloroethene	mg/kg		U	1	J	U	U		U	U		U		U		U	0.25
Methylene chloride	mg/kg		U	1	J	U	U		U	U		U		U		U	0.05
Naphthalene	mg/kg		U	1	J	U	U		U	U		U		U		U	12
Tetrachloroethene	mg/kg	0.0024	J	0.0018		U	0.0025 J	0.001		U	0.002	J	0.002	BJ	0.002	BJ	1.3
Trichloroethene	mg/kg		U	1	J	U	U		U	U		U		U		U	0.47
Trichloroethene	mg/kg	1	U		J	10					1			IUI		I	0.47
Trichloroethene			U		J	Ţ U	SS-DUP	SS-I	OUP02	SS-DUP03	SS-DUP-0			101		10	
Trichloroethene	Sample Location		U	SS-31			SS-DUP SS-06	SS-I	OUP02 S-12	SS-DUP03 SS-17	SS-26			U		I	Part 375
	Sample Location Sample Depth (in)	0-6	U	SS-31 6-12		2-24	SS-DUP SS-06 6-12	SS-II SS 12	OUP02 3-12 2-24	SS-DUP03 SS-17 0-6	SS-26 12-14	01		101		10	Part 375 Unrestricted Use
VOC Parameter List	Sample Location Sample Depth (in) Sample Date	0-6	Į U	SS-31 6-12 4/26/2010			SS-DUP SS-06 6-12 1/12/2010	SS-E SS 12 1/13	DUP02 3-12 2-24 3/2010	SS-DUP03 SS-17 0-6 1/13/2010	SS-26 12-14 4/26/201	0		101		10	Part 375 Unrestricted Use Soil Cleanup
VOC Parameter List USEPA Method 8260	Sample Location Sample Depth (in) Sample Date Sample Type	0-6		SS-31 6-12 4/26/2010 Composite	1	2-24	SS-DUP SS-06 6-12 1/12/2010 Composite	SS-I SS 12 1/13 Con	DUP02 S-12 2-24 3/2010 aposite	SS-DUP03 SS-17 0-6 1/13/2010 Composite	SS-26 12-14	0 e		101		0	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6	U	SS-31 6-12 4/26/2010 Composite	1	2-24 U	SS-DUP SS-06 6-12 1/12/2010 Composite	SS-I SS 12 1/13 Com	DUP02 3-12 2-24 3/2010 pposite	SS-DUP03 SS-17 0-6 1/13/2010 Composite	SS-26 12-14 4/26/201	0 e U		101		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	0-6	U	SS-31 6-12 4/26/2010 Composite	1	2-24 U	SS-DUP SS-06 6-12 1/12/2010 Composite	SS-I SS 12 1/13 Com	DUP02 3-12 2-24 3/2010 aposite U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U	SS-26 12-14 4/26/201	0				U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	0-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	SS-31 6-12 4/26/2010 Composite	1	2-24 U	SS-DUP SS-06 6-12 1/12/2010 Composite U	SS-I SS 12 1/13 Com	DUP02 S-12 2-24 3/2010 aposite U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U	SS-26 12-14 4/26/201	0 ee U U U U				U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg		U U U U	SS-31 6-12 4/26/2010 Composite		2-24 U U U	SS-DUP SS-06 6-12 1/12/2010 Composite U U U U	SS-I SS 12 1/13 Con	DUP02 S-12 2-24 3/2010 aposite U U U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U U U U	SS-26 12-14 4/26/201	0 0 ee U U U U U U				U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U U U U BJ	8S-31 6-12 4/26/2010 Composite	1 U U U U U U U U U U U U U U U U U U U	2-24 U U U U U U U U U U U U U U U U U U U	SS-DUP SS-06 6-12 1/12/2010 Composite U U U U	SS-I SS 12 1/13 Con	DUP02 3-12 2-24 5/2010 aposite U U U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U U U U U U U U	SS-26 12-14 4/26/201	00 ee U U U U U U				U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U BJ	SS-31 6-12 4/26/2010 Composite	0.00	2-24 U U U U U U U U U	SS-DUP SS-06 6-12 1/12/2010 Composite U U U U U	SS-E SS 12 1/13 Com	DUP02 3-12 2-24 5/2010 aposite U U U U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U U U U	SS-26 12-14 4/26/201	0 e U U U U U U U				U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.0041	U U U U BJ U	SS-31 6-12 4/26/2010 Composite		2-24 U U U U U U U U U U U U U U U U U U U	SS-DUP SS-06 6-12 1/12/2010 Composite U U U U	SS-E SS 12 1/13 Com	DUP02 3-12 2-24 5/2010 aposite U U U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U U U U U U U U	SS-26 12-14 4/26/201	0 ee U U U U U U U U U U U		101		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25 0.05
VOC Parameter List USEPA Method 8260 1,1,1-Trichloroethane 2-Butanone	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U BJ	SS-31 6-12 4/26/2010 Composite		2-24 U U U U U U U U U	SS-DUP SS-06 6-12 1/12/2010 Composite U U U U U	SS-II SS 1/1 1/13 Com	DUP02 3-12 2-24 5/2010 aposite U U U U	SS-DUP03 SS-17 0-6 1/13/2010 Composite U U U U U	SS-26 12-14 4/26/201	0 e U U U U U U U		101		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.68 0.05 0.37 0.25

Old Ley Creek Channel Site (7-34-074)

	Sample Location			SS-01						SS-02						SS-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/12/2010	1					1/12/2010)					1/12/2010)			Use Soil Cleanup
USEPA Method 8270	Sample Type			Composite	,					Composite	e					Composite	2			Objectives (ppm)
2,4-Dimethylphenol	mg/kg		U	-	U		U		U		U		U		U		U		U	
2-Methylnaphthalene	mg/kg		U		U		U		U		U	0.046	J	0.48		0.13	J	0.094	J	
3,3'-Dichlorobenzidine	mg/kg		U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg		U		U		U		U		U		U		U		U		U	
4-Methylphenol	mg/kg		U		U		U		U		U		U		U		U		U	
Acenaphthene	mg/kg		U		U		U	0.046	J	0.053	J	0.075	J	0.87		0.08	J		U	20
Acenaphthylene	mg/kg		U		U		U	0.13	J	0.34	J	0.22	J	0.33	J	0.18	J	0.15	J	100
Anthracene	mg/kg		U		U		U	0.16	J	0.41		0.29	J	3.2		0.36	J	0.14	J	100
Benzo(a)anthracene	mg/kg	0.061	J		U		U	0.41		1.2		0.67		3.8		0.69		0.33	J	1
Benzo(a)pyrene	mg/kg	0.063	J		U		U	0.42		1.5		0.74		2.7		0.62		0.33	J	1
Benzo(b)fluoranthene	mg/kg	0.098	J		U		U	0.61		1.9		0.91		3.3		0.78		0.46		1
Benzo(g,h,i)perylene	mg/kg	0.053	J		U		U	0.3	J	1.2		0.57		1.4		0.41		0.25	J	100
Benzo(k)fluoranthene	mg/kg		U		U		U	0.3	J	0.71		0.47		1.8		0.42		0.21	J	0.8
Bis(2-ethylhexyl)phthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Butylbenzylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Carbazole	mg/kg		U		U		U	0.054	J	0.094	J	0.11	J	1.2		0.08	J		U	
Chrysene	mg/kg	0.072	J		U		U	0.47		1.3		0.7		3.6		0.73		0.37	J	1
Dibenzo(a,h)anthracene	mg/kg		U		U		U	0.065	J	0.24	J	0.13	J	0.42		0.11	J	0.06	J	0.33
Dibenzofuran	mg/kg		U		U		U		U		U	0.056	J	1.2		0.083	J		U	
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg	0.17	J	0.098	J	0.13	J	0.14	J	0.099	J	0.072	J	0.15	J	0.12	J	0.16	J	
Fluoranthene	mg/kg	0.12	J		U		U	0.75		2		1.2		8.7	D	1.3		0.64		100
Fluorene	mg/kg		U		U		U	0.053	J	0.081	J	0.1	J	2		0.14	J	0.046	J	30
Indeno(1,2,3-cd)pyrene	mg/kg	0.046	J		U		U	0.29	J	1.1		0.51		1.5		0.4		0.23	J	0.5
Naphthalene	mg/kg		U		U		U		U		U	0.094	J	0.38	J	0.075	J		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	0.8
Phenanthrene	mg/kg		U		U		U	0.43		0.74		0.7		9.4	D	0.85		0.31	J	100
Phenol	mg/kg		U		U		U		U		U		U		U		U		U	0.33
Pyrene	mg/kg	0.1	J		U		U	0.67		1.9		1.1		5.7		1.1		0.54		100

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.
U = Compound was analyzed for, but not detected.

= Estimated Value.

 $D \hspace{1cm} = \hbox{Dilution of sample or extract}.$

Bold values indicate exceedence of standard
Standards taken from Part 375 Unrestricted Soil Cleanup Objectives

TABLE 3-8 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SURFACE SOIL DETECTIONS IN SURFACE SOIL

	- 12	ADLE 3-6 SE	IVII V C	DEATHER ON	UAIN	iic comi oc	ו שאו	DETECTION	SIII	SURFACE S	OIL I	DETECTIONS	111	OKI ACE SC	/IL					1
	Sample Location			SS-04						SS-05						SS-06				
	Sample Depth (in)	0-6		6-12		12-24		0-6	1	6-12		12-24		0-6	1	6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Depth (III)	0-0		1/12/2010)	12-24		0-0	!	1/12/201	Λ	12-24		0-0	!	1/12/2010)	12-24		Use Soil Cleanup
USEPA Method 8270	Sample Type			Composit						Composi						Composit				Objectives (ppm)
2,4-Dimethylphenol	mg/kg		U	Composit	U		U		U	Composi	U	I	U		U	Composit	U	1	U	
2-Methylnaphthalene	mg/kg	0.069	ī	0.04	J	0.078	J	0.061	ī	0.055	T	0.17	ī		U		U		U	
3,3'-Dichlorobenzidine		0.009	U	0.04	U	0.078	U	0.001	U	0.033	U	0.17	U		U		U		U	
4-Chloroaniline	mg/kg		U		U		U		U		U		U		U		U		U	
	mg/kg		U		U		U		U		U		U				U		U	
4-Methylphenol	mg/kg	0.055	U	0.052		0.052			-	0.015	U	0.000	Ū		U					
Acenaphthene	mg/kg	0.056	J	0.053	J	0.063	J	0.1	J	0.045	J	0.088	J		U		U		U	20
Acenaphthylene	mg/kg	0.59		0.34	J	0.57		0.22	J	0.33	J	0.42		0.21	J	0.31	J	0.26	J	100
Anthracene	mg/kg	0.6		0.36	J	0.6	1	0.35	J	0.33	J	0.41		0.19	J	0.28	J	0.15	J	100
Benzo(a)anthracene	mg/kg	1.7		0.99		1.5	\perp	0.77	\perp	0.87	<u> </u>	1.6		0.6	1	0.73		0.49		1
Benzo(a)pyrene	mg/kg	1.6		0.88		1.3		0.75		0.84		1.7		0.54		0.77		0.53		1
Benzo(b)fluoranthene	mg/kg	2.1		1.1		1.8		0.97		1		2.1		0.77		0.91		0.67		1
Benzo(g,h,i)perylene	mg/kg	1		0.54		0.85		0.51		0.53		1.2		0.36	J	0.55		0.35	J	100
Benzo(k)fluoranthene	mg/kg	0.92		0.5		0.66		0.46		0.55		1.1		0.32	J	0.35	J	0.32	J	0.8
Bis(2-ethylhexyl)phthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Butylbenzylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Carbazole	mg/kg	0.088	J	0.076	J	0.11	J	0.094	J	0.061	J	0.086	J	0.042	J	0.062	J		U	
Chrysene	mg/kg	1.8		0.93		1.5		0.78		0.89		1.5		0.64		0.8		0.5		1
Dibenzo(a,h)anthracene	mg/kg	0.27	J	0.16	J	0.23	J	0.13	J	0.15	J	0.28	J	0.1	J	0.14	J	0.1	J	0.33
Dibenzofuran	mg/kg	0.067	J	0.054	J	0.075	J	0.068	J	0.056	J	0.087	J		U		U		U	
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg	0.12	J	0.27	J	0.22	J	0.14	J	0.086	J	0.11	J	0.098	J	0.12	J	0.12	J	
Fluoranthene	mg/kg	2.9		1.6		2.7		1.4		1.6		2.2		1		1.2		0.67		100
Fluorene	mg/kg	0.14	J	0.11	J	0.13	J	0.13	J	0.11	J	0.13	J	0.04	J	0.059	J		U	30
Indeno(1,2,3-cd)pyrene	mg/kg	1		0.56		0.84		0.47		0.53		1.1		0.35	J	0.48		0.35	J	0.5
Naphthalene	mg/kg	0.12	J	0.073	J	0.13	J	0.083	J	0.12	J	0.12	J		U		U		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	0.8
Phenanthrene	mg/kg	1.3		0.73		1.2		0.86		0.72		0.85		0.4		0.52		0.23	J	100
Phenol	mg/kg		U		U		U		U		U		U		U		U		U	0.33
Pyrene	mg/kg	2.4		1.4		2.2		1.2	Ħ	1.3		2.1		0.96	Ħ	1.2	Ì	0.64		100

			17	IDEL 3-0 SE	V11 V (DENTILE OR	UAIN	ис сомрос	JIND.	DETECTION	10 111	JUNI ACL D	JIL	1						
	Sample Location			SS-07						SS-08						SS-09				
		0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		D . 055 TT
	Sample Depth (in)	0-6				12-24		0-6			1.0	12-24		0-6			_	12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/12/2010						1/13/20						1/13/2010				Use Soil Cleanup
USEPA Method 8270	Sample Type			Composit			_			Compos						Composit				Objectives (ppm)
2,4-Dimethylphenol	mg/kg		U		U		U		U		U		U		U		U		U	
2-Methylnaphthalene	mg/kg	0.11	J		U	0.11	J	0.13	J		U		U	0.15	J		U		U	
3,3'-Dichlorobenzidine	mg/kg		U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg		U		U		U		U		U		U		U		U		U	
4-Methylphenol	mg/kg		U		U		U		U		U		U		U		U		U	
Acenaphthene	mg/kg	0.093	J	0.1	J	0.12	J	0.13	J		U		U	0.086	J		U		U	20
Acenaphthylene	mg/kg	1.1		0.82		0.92		1		0.15	J	0.064	J	1.2		0.15	J	0.057	J	100
Anthracene	mg/kg	1.1		0.9		1.1		1.1		0.13	J	0.054	J	1.1		0.13	J	0.054	J	100
Benzo(a)anthracene	mg/kg	2.5		2.2		2.3		1.8		0.2	J	0.12	J	1.7		0.26	J	0.09	J	1
Benzo(a)pyrene	mg/kg	2.4		2.2		2.1		2.2		0.24	J	0.13	J	1.9		0.27	J	0.1	J	1
Benzo(b)fluoranthene	mg/kg	3		2.8		2.5		3.1		0.32	J	0.2	J	2.3		0.31	J	0.15	J	1
Benzo(g,h,i)perylene	mg/kg	1.5		1.6		1.3		2.1		0.21	J	0.15	J	1.9		0.21	J	0.086	J	100
Benzo(k)fluoranthene	mg/kg	1.4		1.2		1.1		1.4		0.16	J	0.069	J	1.2		0.18	J	0.051	J	0.8
Bis(2-ethylhexyl)phthalate	mg/kg		U		U		U	0.36	J		U		U	0.29	J		U		U	
Butylbenzylphthalate	mg/kg		U		U		U	0.065	J		U		U		U		U		U	
Carbazole	mg/kg	0.18	J	0.13	J	0.14	J	0.34	J		U		U	0.2	J		U		U	
Chrysene	mg/kg	2.8		2.8		2.6		2.4		0.29	J	0.14	J	2		0.27	J	0.12	J	1
Dibenzo(a,h)anthracene	mg/kg	0.39	J	0.4		0.34	J	0.48	J		U		U	0.38	J	0.053	J		U	0.33
Dibenzofuran	mg/kg	0.075	J		U	0.079	J	0.1	J		U		U	0.091	J		U		U	
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		U	0.25	J	
Di-n-butylphthalate	mg/kg	0.1	J	0.11	J	0.15	J	0.22	J	0.11	J	0.11	J	0.081	J	0.066	J	0.068	J	
Fluoranthene	mg/kg	4		3.5		3.8		4.2		0.49	J	0.23	J	3		0.46		0.16	J	100
Fluorene	mg/kg	0.22	J	0.26	J	0.21	J	0.23	J		U		U	0.22	J	0.041	J		U	30
Indeno(1,2,3-cd)pyrene	mg/kg	1.4		1.3		1.2		2		0.19	J	0.13	J	1.6		0.19	J	0.087	J	0.5
Naphthalene	mg/kg	0.12	J		U	0.11	J	0.12	J		U		U	0.15	J		U		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	0.8
Phenanthrene	mg/kg	1.7		2		1.7		2		0.24	J	0.11	J	1.6		0.26	J	0.082	J	100
Phenol	mg/kg	0.14	J		U		U		U		U		U		U		U		U	0.33
Pyrene	mg/kg	3.9		3.6		3.8		3.7		0.45	J	0.21	J	2.9		0.42		0.15	J	100

Parameter List Sample	Depth (in) 0 Date			SS-10 6-12 1/13/2010		12-24				SS-11										,
Sample S	Depth (in) 0 Date Type mg/kg			6-12		12.24										SS-12				i
Parameter List Sample	Date Fype mg/kg			1/13/2010		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
USEPA Method 8270 Sample 7 2.4-Dimethylphenol 2-Methylnaphthalene 3.3'-Dichlorobenzidine 4-Chloroaniline 4-Methylphenol Acenaphthene Acenaphthylene Acnaphthylene Benzo(a)anthracene Benzo(a)pyrene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(g,hluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	Type mg/kg	-								1/13/2010)					1/13/2010				Use Soil Cleanup
2-Methylnaphthalene 3,3'-Dichlorobenzidine 4-Chloroaniline 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(shfluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate		- 1		Composite						Composit	e					Composite	,			Objectives (ppm)
2-Methylnaphthalene 3,3'-Dichlorobenzidine 4-Chloroaniline 4-Methylphenol Acenaphthylene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(shfluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate			U	NR		NR			U	•	U		U		U	•	U		U	
3,3'-Dichlorobenzidine 4-Chloroaniline 4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate			J	NR		NR			U	0.04	J		U	0.076	J	0.063	J	0.11	J	
4-Methylphenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg		U	NR		NR			U		U		U		U		U		U	
Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg		U	NR		NR			U		U		U		U		U		U	
Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 0.22		J	NR		NR		0.048	J		U		U	0.063	J	0.057	J	0.097	J	20
Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 2.1			NR		NR		0.45		0.16	J	0.13	J	0.64		0.57		0.33	J	100
Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,î)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 2.3			NR		NR		0.49		0.15	J	0.12	J	0.62		0.53		0.51		100
Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 2.9			NR		NR		1.4		0.34	J	0.23	J	1.1		0.89		0.9		1
Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 3.6			NR		NR		1.3		0.35	J	0.26	J	1.2		0.96		0.88		1
Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 5.5			NR		NR		1.5		0.45		0.32	J	1.5		1.2		1.2		1
Bis(2-ethylhexyl)phthalate Butylbenzylphthalate	mg/kg 3.3			NR		NR		0.79		0.24	J	0.19	J	0.87		0.74		0.61		100
Butylbenzylphthalate	mg/kg 2			NR		NR		0.78		0.22	J	0.16	J	0.83		0.83		0.5		0.8
	mg/kg 0.75			NR		NR			U		U		U	0.2	J	0.18	J		U	
Carbazole	mg/kg 0.085		J	NR		NR			U		U		U		U		U		U	
	mg/kg 0.58		J	NR		NR		0.082	J		U		U	0.16	J	0.15	J	0.12	J	
Chrysene	mg/kg 4.2			NR		NR		1.3		0.4	J	0.27	J	1.4		1.2		1		1
Dibenzo(a,h)anthracene	mg/kg 0.76			NR		NR		0.2	J	0.059	J	0.048	J	0.21	J	0.18	J	0.16	J	0.33
Dibenzofuran	mg/kg 0.15		J	NR		NR			U		U		U	0.049	J		U	0.074	J	
Dimethylphthalate	mg/kg		U	NR		NR			U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg 0.32		J	NR		NR		0.11	J	0.094	J	0.1	J	0.15	J	0.12	J	0.084	J	
Fluoranthene	mg/kg 7.2			NR		NR		2.3		0.64		0.45		2.5		2.1		2		100
Fluorene	mg/kg 0.41		J	NR		NR		0.081	J	0.044	J		U	0.12	J	0.11	J	0.15	J	30
Indeno(1,2,3-cd)pyrene	mg/kg 3			NR		NR		0.75		0.26	J	0.2	J	0.8		0.68		0.59		0.5
	mg/kg 0.14		J	NR		NR			U		U		U		U		U		U	12
	mg/kg		U	NR		NR			U		U		U		U		U		U	0.8
Phenanthrene	mg/kg 3.4			NR		NR		0.76		0.31	J	0.21	J	1.1		1		1.2		100
	mg/kg		U	NR		NR			U		U		U		U		U		U	0.33
Pyrene	mg/kg 6.4			NR		NR		2.1		0.61		0.43		2.2		1.9		1.7		100
NOTE: NR = No Recovery.								· · · · · · · · · · · · · · · · · · ·	_									· · · · · · · · · · · · · · · · · · ·		

	1	1		IDEE 5 C DEI	,,,,,	OLITTIBE ON	0.1.	10 001111 00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	DETECTION	10 11 1	, crui i i ce e	J12	1						
	Sample Location			SS-13						SS-14						SS-15				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date	0.0		1/13/2010)	122.		0.0		1/13/201	10			0.0		1/13/2010)	122.		Use Soil Cleanup
USEPA Method 8270	Sample Type			Composite						Compos						Composite				Objectives (ppm)
2,4-Dimethylphenol	mg/kg		U	NR	1	NR	I		U		U		U		U		U	NR		
2-Methylnaphthalene	mg/kg	0.23	J	NR	1	NR			U		U		U	0.14	J	0.076	J	NR		
3.3'-Dichlorobenzidine	mg/kg		U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg	0	U	NR		NR			U		U		U		U		U	NR		
4-Methylphenol	mg/kg	0	U	NR		NR			U		U		U	0.073	J		U	NR		
Acenaphthene	mg/kg	0.19	J	NR		NR			U		U		U	0.1	J	0.097	J	NR		20
Acenaphthylene	mg/kg	2		NR		NR		0.078	J	0.079	J	0.076	J	1.6		0.32	J	NR		100
Anthracene	mg/kg	2.2		NR		NR		0.063	J	0.062	J	0.074	J	2.6		0.59		NR		100
Benzo(a)anthracene	mg/kg	2.4		NR		NR		0.15	J	0.2	J	0.21	J	7.1	D	1.3		NR		1
Benzo(a)pyrene	mg/kg	2.9		NR		NR		0.15	J	0.2	J	0.2	J	4.5		1.3		NR		1
Benzo(b)fluoranthene	mg/kg	4.7		NR		NR		0.21	J	0.28	J	0.26	J	5.6		1.6		NR		1
Benzo(g,h,i)perylene	mg/kg	2.6		NR		NR		0.1	J	0.14	J	0.14	J	2.1		0.89		NR		100
Benzo(k)fluoranthene	mg/kg	1.6		NR		NR		0.1	J	0.11	J	0.1	J	3		0.86		NR		0.8
Bis(2-ethylhexyl)phthalate	mg/kg	0.61		NR		NR			U		U		U	0.12	J	0.15	J	NR		
Butylbenzylphthalate	mg/kg	0.072	J	NR		NR			U		U		U	0.11	J	0.088	J	NR		
Carbazole	mg/kg	0.53	J	NR		NR			U		U		U	0.38		0.16	J	NR		
Chrysene	mg/kg	3.5		NR		NR		0.18	J	0.21	J	0.21	J	5.9		1.3		NR		1
Dibenzo(a,h)anthracene	mg/kg	0.63		NR		NR			U		U		U	0.79		0.22	J	NR		0.33
Dibenzofuran	mg/kg	0.17	J	NR		NR			U		U		U	0.27	J	0.1	J	NR		
Dimethylphthalate	mg/kg		U	NR		NR			U		U		U		U		U	NR		
Di-n-butylphthalate	mg/kg	0.22	J	NR		NR		0.071	J	0.067	J	0.077	J	0.092	J	0.061	J	NR		
Fluoranthene	mg/kg	6.2		NR		NR		0.32	J	0.34	J	0.39	J	14	D	2.4		NR		100
Fluorene	mg/kg	0.37	J	NR		NR			U		U		U	0.62		0.18	J	NR		30
Indeno(1,2,3-cd)pyrene	mg/kg	2.4		NR		NR		0.1	J	0.14	J	0.14	J	2.4		0.87		NR		0.5
Naphthalene	mg/kg	0.24	J	NR		NR			U		U		U	0.17	J	0.069	J	NR		12
Pentachlorophenol	mg/kg		U	NR		NR			U		U		U		U		U	NR		0.8
Phenanthrene	mg/kg	3.1		NR		NR		0.15	J	0.15	J	0.22	J	5.2		1.4		NR		100
Phenol	mg/kg		U	NR		NR			U		U		U		U		U	NR		0.33
Pyrene	mg/kg	5.5		NR		NR		0.28	J	0.33	J	0.36	J	9.5	D	1.9		NR		100

Old Ley Creek Channel Site (7-34-074)

	1		11	IDEE 3 0 DE	VII V C	LITTLE OR	0711	ic com oc)IND .	DETECTION	10 111	SURFACE SU	<i>,</i> 112							
	Sample Location			SS-16						SS-17						SS-18				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6	- 1	6-12		12-24		Part 375 Unrestricted
D	Sample Depth (III)	0-0		1/13/2010		12-24		0-0		1/13/201	10	12-24		0-0		1/13/2010	١	12-24		
Parameter List USEPA Method 8270	Sample Type			Composit						Compos						Composite				Use Soil Cleanup
			1	Composit			1		1	Compos		1	1		1	Compositi	_		1	Objectives (ppm)
2,4-Dimethylphenol	mg/kg	0.16	U	0.050	U	NR	1	0.15	U	0.2	U		U	0.1	U	0.10	U	0.25	U	
2-Methylnaphthalene	mg/kg	0.16	J	0.058	J	NR		0.17	J	0.3	J		U	0.1	J	0.18	J	0.27	J	
3,3'-Dichlorobenzidine	mg/kg		U		U		U		U	0.051	U		U		U		U		U	
4-Chloroaniline	mg/kg		U		U	NR			U	0.061	J		U		U		U		U	
4-Methylphenol	mg/kg		U		U	NR			U		U		U		U		U	0.066	J	
Acenaphthene	mg/kg	0.13	J	0.072	J	NR		0.17	J	0.17	J		U	0.14	J	0.15	J	0.22	J	20
Acenaphthylene	mg/kg	1.4		0.62		NR		1.4		1.9		0.21	J	1.1		2		2.1		100
Anthracene	mg/kg	1.5		0.69		NR		1.6		2.1		0.19	J	1.1		1.5		1.8		100
Benzo(a)anthracene	mg/kg	1.7		0.7		NR		1.9		2		0.67		1.7		2.3		3		1
Benzo(a)pyrene	mg/kg	2		0.88		NR		2.1		2.2		0.72		2		2.9		3.4		1
Benzo(b)fluoranthene	mg/kg	3.1		1.3		NR		3.2		3		0.85		2.6		3.4		4.6		1
Benzo(g,h,i)perylene	mg/kg	1.6		0.75		NR		1.5		1.7		0.56		1.9		2.6		2.9		100
Benzo(k)fluoranthene	mg/kg	1.2		0.62		NR		1.3		1.4		0.51		1.6		1.9		2.5		0.8
Bis(2-ethylhexyl)phthalate	mg/kg	0.37	J	0.17	J	NR		0.39	J	0.46	J		U	0.38	J	0.23	J	0.49	J	
Butylbenzylphthalate	mg/kg		U		U	NR			U		U		U		U		U		U	
Carbazole	mg/kg	0.39	J	0.16	J	NR		0.38	J	0.35	J	0.085	J	0.36	J	0.38	J	0.58		
Chrysene	mg/kg	2.3		1		NR		2.6		2.4		0.79		2.3		3.2		4.1		1
Dibenzo(a,h)anthracene	mg/kg	0.45	J	0.18	J	NR		0.39	J	0.41	J	0.13	J	0.4	J	0.51	J	0.63		0.33
Dibenzofuran	mg/kg	0.12	J	0.05	J	NR		0.12	J	0.17	J		U	0.1	J	0.12	J	0.19	J	
Dimethylphthalate	mg/kg		U		U	NR			U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg	0.13	J	0.093	J	NR		0.12	J	0.11	J	0.072	J	0.13	J	0.1	J	0.22	J	
Fluoranthene	mg/kg	4.2		2		NR		4.7		4.2		1.3		4.6		5.2		7.6		100
Fluorene	mg/kg	0.26	J	0.12	J	NR		0.3	J	0.35	J	0.063	J	0.25	J	0.35	J	0.42	J	30
Indeno(1,2,3-cd)pyrene	mg/kg	1.5		0.71		NR		1.5		1.5		0.51		1.8		2.3		2.8		0.5
Naphthalene	mg/kg	0.17	J		U	NR		0.17	J	0.29	J		U		U	0.23	J	0.3	J	12
Pentachlorophenol	mg/kg		U		U	NR			U		U		U		U		U		U	0.8
Phenanthrene	mg/kg	2.1		0.95	tt	NR		2.4	1	2.3	1	0.68		2.3		2.4		3.6	1	100
Phenol	mg/kg		U		U	NR			U		U		U		U		U		U	0.33
Pyrene	mg/kg	3.8		1.7	tit	NR	1	4.1		3.9		1.3		3.7		4.4		5.8	1	100
ĮL.:			•		•		•					•	•		-		•			الـــــــــــــــــــــــــــــــــــــ

	1	11	IDEE 3 0 DE	1711 7 (JETTILL OROTIN	ic comi o	CIND	DETECTION	10 111	JUNI ACL BO	ль	1						
Commis I costion			CC 10					66.30						CC 21				
	0.6			1	12.24	0.6				12.24		0.6				12.24		
	0-6			^	12-24	0-6			0	12-24		0-6			`	12-24		Part 375 Unrestricted
																		Use Soil Cleanup
		1	Composi		1		1			T	1		1	Composite		T	1	Objectives (ppm)
		U							J				_				<u> </u>	
	0.19	J				0.071		0.56		0.24			_	0.054		NR		
		_		-							_		_				U	
									,				_					
mg/kg		U		U			U		J	0.084	J		U		U	NR		
mg/kg		J		U			J			0.18	J	0.081	J		J	NR		20
mg/kg	1.2			U	U	0.58		4.3		2.4		0.46		0.5		NR		100
mg/kg	1.2		0.046	J	U	0.61		4.1		1.9		0.45		0.5		NR		100
mg/kg	1.2		0.084	J	U	1.2		4		3.3		1		0.94		NR		1
mg/kg	1.5		0.093	J	U	1.5		4.4		3.9		0.93		1.2		NR		1
mg/kg	1.8		0.14	J	U	2.2		5.7		4.9		1.1		1.6		NR		1
mg/kg	1.4		0.099	J	U	1.5		4.3		3.2		0.74		1.5		NR		100
mg/kg	0.94		0.054	J	U	1.1		2.6		2.3		0.53		0.87		NR		0.8
mg/kg	0.37	J		U	U	0.24	J	0.77		0.4	J	0.17	J	0.16	J	NR		
mg/kg		U		U	U		U		U	0	U		U		U	NR		
mg/kg	0.3	J		U	U	0.23	J	0.91		0.5		0.092	J	0.12	J	NR		
mg/kg	1.8		0.1	J	U	1.7		5.4		4.2		1.1		1.1		NR		1
mg/kg	0.3	J		U	U	0.32	J	0.94		0.77		0.15	J	0.29	J	NR		0.33
mg/kg	0.13	J		U	U	0.056	J	0.45	J	0.2	J		U	0.049	J	NR		
mg/kg		U		U	U		U		U		U		U		U	NR		
mg/kg	0.096	J	0.062	J	U	0.37	J	0.13	J	0.1	J	0.079	J	0.088	J	NR		
mg/kg	3.5		0.18	J	U	3		11	D	7.8	D	1.9		1.9		NR		100
mg/kg	0.27	J		U	U	0.16	J	0.96		0.49		0.24	J	0.13	J	NR		30
mg/kg	1.2		0.1	J	U	1.5		3.6		2.8		0.63		1.3		NR		0.5
mg/kg		U		U	U		U	0.67		0.31	J		U		U	NR		12
mg/kg		U		U	U		U		U		U		U		U	NR		0.8
mg/kg	2	1	0.092	J	U	1.3		6.4		3.7		1.4	1	0.86		NR		100
mg/kg	İ	U		U	U		U	0.07	J		U		U		U	NR		0.33
mg/kg	2.7	1	0.16	J	U	2.5		9.1	D	5.8	1	1.8	İ	1.5		NR	1	100
	mg/kg mg/kg	Sample Depth (in) 0-6 Sample Date Sample Type mg/kg 0.19 mg/kg 0.19 mg/kg 0.16 mg/kg 1.2 mg/kg 1.2 mg/kg 1.2 mg/kg 1.5 mg/kg 1.4 mg/kg 0.37 mg/kg 0.37 mg/kg 0.3 mg/kg 0.3 mg/kg 0.1 mg/kg 0.1 mg/kg 0.1 mg/kg 0.096 mg/kg 0.27 mg/kg 1.2 mg/kg 1.2 mg/kg 0.27 mg/kg 2 mg/kg 2	Sample Location Sample Depth (in) 0-6	Sample Location SS-19 Sample Depth (in) 0-6 6-12 Sample Date 1/13/201 Composi Sample Type Composi mg/kg U U mg/kg U U mg/kg U U mg/kg U U mg/kg 1.2 0.046 mg/kg 1.2 0.084 mg/kg 1.5 0.093 mg/kg 1.4 0.099 mg/kg 0.37 J mg/kg 0.37 J mg/kg 0.3 J mg/kg 0.3 <td>Sample Location SS-19 Sample Depth (in) 0-6 6-12 Sample Date 1/13/2010 Composite mg/kg U U U mg/kg 0.19 J U U mg/kg U U U U mg/kg U U U U mg/kg 0.16 J U U mg/kg 1.2 U U U mg/kg 1.2 0.046 J U U mg/kg 1.2 0.046 J U</td> <td> Sample Location</td> <td> Sample Location</td> <td> Sample Location</td> <td>Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 Sample Date 1/13/2010 1/13/2010 1/13/2010 Sample Type Composite Composite Composite Composite mg/kg 0.19 J U U U 0.001 J 0.088 mg/kg 0.19 J U U U U 0.071 J 0.56 mg/kg U U U U U U U 0.13 mg/kg U U U U U 0.13 U 0.13 mg/kg 0.16 J U U 0.081 J 0.51 mg/kg 0.12 U U U 0.088 J 0.51 mg/kg 1.2 0.046 J U 0.61 4.1</td> <td> Sample Location SS-19</td> <td> Sample Location SS-19 SS-20 Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 12-24 Sample Date 1/13/2010 </td> <td> Sample Depth (in)</td> <td> Sample Location SS-19</td> <td> Sample Location Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 12-24 0-6 </td> <td> Sample Location</td> <td> Sample Location SS-19</td> <td> Sample Depth (in) O-6</td> <td> Sample Location</td>	Sample Location SS-19 Sample Depth (in) 0-6 6-12 Sample Date 1/13/2010 Composite mg/kg U U U mg/kg 0.19 J U U mg/kg U U U U mg/kg U U U U mg/kg 0.16 J U U mg/kg 1.2 U U U mg/kg 1.2 0.046 J U U mg/kg 1.2 0.046 J U	Sample Location	Sample Location	Sample Location	Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 Sample Date 1/13/2010 1/13/2010 1/13/2010 Sample Type Composite Composite Composite Composite mg/kg 0.19 J U U U 0.001 J 0.088 mg/kg 0.19 J U U U U 0.071 J 0.56 mg/kg U U U U U U U 0.13 mg/kg U U U U U 0.13 U 0.13 mg/kg 0.16 J U U 0.081 J 0.51 mg/kg 0.12 U U U 0.088 J 0.51 mg/kg 1.2 0.046 J U 0.61 4.1	Sample Location SS-19	Sample Location SS-19 SS-20 Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 12-24 Sample Date 1/13/2010	Sample Depth (in)	Sample Location SS-19	Sample Location Sample Depth (in) 0-6 6-12 12-24 0-6 6-12 12-24 0-6	Sample Location	Sample Location SS-19	Sample Depth (in) O-6	Sample Location

				IDDL U U DL.	111 1 (LITTLE OIL	02111	іс сомрос		DETECTION	110 111	Deru Heb b								
	Sample Location			SS-22						SS-23						SS-24				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		D . 055 TT
	Sample Depth (III)	0-0		1/13/2010		12-24		0-0		1/13/201	10	12-24		0-0		1/13/2010	0	12-24		Part 375 Unrestricted
Parameter List	Sample Date Sample Type			Composit						Composi						Composit				Use Soil Cleanup
USEPA Method 8270	1 /1			Composit		0.20	T -			Composi		1				Composit		1		Objectives (ppm)
2,4-Dimethylphenol	mg/kg	0.005	U		U	0.38	J	0.20	U	0.40	U	0.20	U	0.15	U	0.12	U		U	
2-Methylnaphthalene	mg/kg	0.096	J	0.2	J	0.27	J	0.29	J	0.49	J	0.29	J	0.15	J	0.13	J	0.077	J	
3,3'-Dichlorobenzidine	mg/kg		U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg		U		U		U		U	0.29	J		U		U		U		U	
4-Methylphenol	mg/kg		U		U		U		U		U	0.14	J		U		U		U	
Acenaphthene	mg/kg	0.092	J	0.18	J	0.096	J	0.26	J	0.18	J	0.1	J	0.16	J	0.096	J		U	20
Acenaphthylene	mg/kg	0.59	J	1.7		1.5		2.8		2.5		1.8		1.4		1		0.61		100
Anthracene	mg/kg	0.61	J	1.8		1.4		2.6		2.7		1.7		1.3		0.97		0.36	J	100
Benzo(a)anthracene	mg/kg	1.2		2.9		1.1		3.5		1.7		1.6		1.8		0.64	J	0.66		1
Benzo(a)pyrene	mg/kg	1.6		4		2.4		4		2.1		2.6		2.1		0.81		0.86		1
Benzo(b)fluoranthene	mg/kg	1.8		4.3		2.7		5.5		2.6		2.6		2.5		1.1		1.3		1
Benzo(g,h,i)perylene	mg/kg	2.2		4.1		2		3.6		2.4		2.4		1.6		0.8		0.82		100
Benzo(k)fluoranthene	mg/kg	1.3		3.9		2.2		3		2.2		2.3		1.2		0.64	J	0.42	J	0.8
Bis(2-ethylhexyl)phthalate	mg/kg	0.46	J	0.7		6		0.83		0.74		5.8		0.41	J	0.28	J	0.38	J	
Butylbenzylphthalate	mg/kg	0.17	J	0.094	J		U	0.11	J		U		U		U		U		U	
Carbazole	mg/kg	0.23	J	0.52	J	0.23	J	0.71		0.39	J	0.23	J	0.35	J	0.15	J	0.11	J	
Chrysene	mg/kg	1.7		3.5		2.2		4.5		2.5		2		2.3		0.86		0.91		1
Dibenzo(a,h)anthracene	mg/kg	0.29	J	0.78		0.44	J	0.79		0.5	J	0.52	J	0.38	J	0.17	J	0.19	J	0.33
Dibenzofuran	mg/kg		U	0.15	J	0.15	J	0.2	J	0.23	J	0.13	J	0.11	J	0.076	J		U	
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg	0.14	J	0.28	J	0.12	J	0.2	J	0.17	J		U	0.07	J		U		U	
Fluoranthene	mg/kg	3.1		6.7		2		9		3.9		2.8		4.8		1.6		1.4		100
Fluorene	mg/kg	0.15	J	0.37	J	0.13	J	0.51	J	0.41	J	0.16	J	0.29	J	0.17	J	0.1	J	30
Indeno(1,2,3-cd)pyrene	mg/kg	1.6		3.4		1.8		3.4		2.1		2		1.4		0.69		0.8		0.5
Naphthalene	mg/kg		U	0.19	J		U	0.27	J	0.39	J	0.27	J		U		U		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U	0.42	J		U		U	0.8
Phenanthrene	mg/kg	1.2		2.8		1		3.8		2		1.2		2.2		0.84	1	0.66		100
Phenol	mg/kg		U		U		U		U		U		U		U		U		U	0.33
Pyrene	mg/kg	2.2		5.1	\Box	2.1		6.7		3.2		2.7		3.7		1.3	1	1.3	1	100

EA Engineering, P.C. and Its Affiliate EA Science and Technology

			TA	ABLE 3-8 SEM	MIV	OLATILE OR	GAN	IC COMPOU	JND I	DETECTION	IS IN S	URFACE SO	OIL							
	Sample Location			SS-25						SS-26						SS-27				
I	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010)					4/26/201	0					4/26/2010	1			Use Soil Cleanup
USEPA Method 8270	Sample Type			Composite	9					Composit	te					Composite	•			Objectives (ppm)
2,4-Dichlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	
2-Methylnaphthalene	mg/kg		U	1	U		U		U		U		U		U		U		U	
3,3'-Dichlorobenzidine	mg/kg	1	U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg		U	i	U		U		U		U		U		U		U		U	
4-Methylphenol	mg/kg	1	U	ĺ	U		U		U		U		U		U		U		U	
Acenaphthene	mg/kg		U	0.058	J		U		U		U		U		U		U		U	20
Acenaphthylene	mg/kg	0.19	J	0.73		0.19	J	0.12	J	0.1	J	0.18	J		U	0.069	J		U	100
Anthracene	mg/kg	0.2	J	0.59		0.14	J	0.11	J	0.076	J	0.12	J		U	0.056	J		U	100
Benzo(a)anthracene	mg/kg	0.36	J	1		0.28	J	0.23	J	0.17	J	0.29	J	0.11	J	0.18	J	0.07	J	1
Benzo(a)pyrene	mg/kg	0.32	J	0.91		0.23	J	0.21	J	0.13	J	0.25	J	0.081	J	0.13	J	0.058	J	1
Benzo(b)fluoranthene	mg/kg	0.45		1.3		0.3	J	0.28	J	0.19	J	0.35	J	0.12	J	0.19	J	0.068	J	1
Benzo(g,h,i)perylene	mg/kg	0.25	J	0.62		0.17	J	0.16	J	0.12	J	0.19	J	0.069	J	0.12	J	0.047	J	100
Benzo(k)fluoranthene	mg/kg	0.21	J	0.51		0.15	J	0.095	J	0.057	J	0.13	J	0.052	J	0.072	J		U	0.8
Bis(2-ethylhexyl)phthalate	mg/kg	<u> </u>	U	0.23	J		U		U		U		U		U	1.2			U	
Butylbenzylphthalate	mg/kg	<u>T</u>	U		U		U		U		U		U		U		U		U	
Carbazole	mg/kg	0.057	J	0.11	J		U		U		U		U		U		U		U	
Chrysene	mg/kg	0.5	Ш	1.3		0.34	J	0.33	J	0.21	J	0.32	J	0.12	J	0.2	J	0.073	J	1
Dibenzo(a,h)anthracene	mg/kg	0.078	J	0.18	J	0.059	J		U		U	0.046	J		U		U		U	0.33
Dibenzofuran	mg/kg	<u> </u>	U	0.043	J		U		U		U		U		U		U		U	
Dimethylphthalate	mg/kg		U	<u> </u>	U		U		U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg		U	0.22	J		U		U		U		U		U		U		U	
Fluoranthene	mg/kg	0.72	\coprod	2.1		0.48		0.42	J	0.27	J	0.46		0.16	J	0.28	J	0.1	J	100
Fluorene	mg/kg		U	0.13	J		U		U		U		U		U		U		U	30
Indeno(1,2,3-cd)pyrene	mg/kg	0.2	J	0.52		0.15	J	0.12	J	0.087	J	0.18	J	0.058	J	0.077	J		U	0.5
Naphthalene	mg/kg		U		U		U		U		U		U		U		U		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	0.8
Phenanthrene	mg/kg	0.43	J	0.86		0.3	J	0.24	J	0.15	J	0.22	J	0.085	J	0.14	J	0.046	J	100
Phenol	mg/kg	1	U		U		U		U		U		U		U		U		U	0.33
Pyrene	mg/kg	0.92		2.1		0.6		0.49		0.36	J	0.55		0.2	J	0.3	J	0.12	J	100

				IDEE 5 C SE		JEITTEE OIL		10 00 00	,,,,,,	DETECTION	10 11 1	Betti Hell B	OIL.							1
	Sample Location			SS-28						SS-29						SS-30				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010)					4/26/201	10					4/26/2010	0			Use Soil Cleanup
USEPA Method 8270	Sample Type			Composit						Compos						Composit				Objectives (ppm)
2,4-Dichlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	
2-Methylnaphthalene	mg/kg		U		U		U		U		U		U		U		U		U	
3.3'-Dichlorobenzidine	mg/kg	İ	U		U		U		U		U		U		U		U		U	
4-Chloroaniline	mg/kg		U		U		U		U		U		U		U		U		U	
4-Methylphenol	mg/kg		U		U		U		U		U		U		U		U		U	
Acenaphthene	mg/kg	0.086	J		U		U		U		U		U		U		U		U	20
Acenaphthylene	mg/kg	0.78		0.23	J	0.079	J	0.82		0.32	J	0.056	J	0.5	J	0.11	J	0.071	J	100
Anthracene	mg/kg	0.76		0.17	J	0.053	J	0.55	J	0.22	J		U	0.36	J	0.083	J		U	100
Benzo(a)anthracene	mg/kg	1.1		0.3	J	0.13	J	0.72		0.4	J	0.092	J	0.63		0.17	J	0.13	J	1
Benzo(a)pyrene	mg/kg	0.9		0.31	J	0.097	J	0.93		0.4	J	0.061	J	0.7		0.16	J	0.11	J	1
Benzo(b)fluoranthene	mg/kg	1.5		0.24	J	0.12	J	0.79		0.47	J	0.09	J	0.89		0.21	J	0.16	J	1
Benzo(g,h,i)perylene	mg/kg	0.82		0.21	J	0.081	J	0.72		0.27	J		U	0.49	J		U	0.079	J	100
Benzo(k)fluoranthene	mg/kg	0.81		0.41	J	0.15	J	0.99		0.26	J	0.058	J	0.46	J	0.11	J	0.087	J	0.8
Bis(2-ethylhexyl)phthalate	mg/kg	0.3	J		U		U	0.41	J	0.17	J		U	0.18	J		U		U	
Butylbenzylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Carbazole	mg/kg	0.21	J		U		U	0.14	J		U		U	0.12	J		U		U	
Chrysene	mg/kg	1.6		0.53		0.2	J	1.1		0.57		0.096	J	1		0.23	J	0.18	J	1
Dibenzo(a,h)anthracene	mg/kg	0.11	J		U		U	0.17	J		U		U		U		U		U	0.33
Dibenzofuran	mg/kg		U		U		U		U		U		U		U		U		U	
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		U		U	
Di-n-butylphthalate	mg/kg		U	0.087	J		U		U	0.1	J		U	0.13	J		U		U	
Fluoranthene	mg/kg	2.8		0.56		0.25	J	1.4		0.6		0.12	J	1.4		0.27	J	0.22	J	100
Fluorene	mg/kg	0.16	J		U		U	0.12	J	0.056	J		U	0.088	J		U		U	30
Indeno(1,2,3-cd)pyrene	mg/kg	0.14	J	0.21	J	0.069	J	0.55	J	0.25	J		U	0.41	J		U	0.079	J	0.5
Naphthalene	mg/kg		U		U		U		U		U		U		U		U		U	12
Pentachlorophenol	mg/kg		U		U		U		U		U		U		U		U		U	0.8
Phenanthrene	mg/kg	1.3		0.31	J	0.13	J	0.74		0.35	J	0.068	J	0.71		0.16	J	0.12	J	100
Phenol	mg/kg		U		U		U		U		U		U		U	0.96			U	0.33
Pyrene	mg/kg	2.9		0.75		0.32	J	1.7		0.95		0.15	J	1.6		0.39	J	0.27	J	100

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								SS-DUP		SS-DUP0	2	SS-DUP03	3	SS-DUP-01	l I		
	Sample Location			SS-31				SS-06		SS-12		SS-17		SS-26			
	Sample Depth (in)	0-6		6-12		12-24		6-12		12-24		0-6		12-14			Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010				1/12/2010		1/13/2010		1/13/2010		4/26/2010			Use Soil Cleanup
USEPA Method 8270	Sample Type			Composit	e			Composite	;	Composit	e	Composite	9	Composite	<u> </u>		Objectives (ppm)
2,4-Dichlorophenol	mg/kg		U		U		U		U		U		U		U		
2-Methylnaphthalene	mg/kg	0.15	J	0.39	J	0.37	J		U	0.11	J	0.12	J		U		
3,3'-Dichlorobenzidine	mg/kg	0.15	J		U		U		U		U		U		U		
4-Chloroaniline	mg/kg		U		U	0.1	J		U		U		U		U		
4-Methylphenol	mg/kg		U		U		U		U		U		U		U		
Acenaphthene	mg/kg	0.75		1		1.3			U	0.11	J	0.13	J		U		20
Acenaphthylene	mg/kg	0.8		1.6		2		0.32	J	0.25	J	1		0.13	J		100
Anthracene	mg/kg	3.2		4.4		5		0.24	J	0.45		0.93		0.1	J		100
Benzo(a)anthracene	mg/kg	8.2	D	13	D	14	D	0.77		1		1.5		0.23	J		1
Benzo(a)pyrene	mg/kg	6.2	D	11	D	12	D	0.8		1		1.8		0.17	J		1
Benzo(b)fluoranthene	mg/kg	7.4	D	12	D	12	D	1.1		1.4		2.5		0.22	J		1
Benzo(g,h,i)perylene	mg/kg	3.7		5.9		5.7		0.59		0.7		1.5		0.13	J		100
Benzo(k)fluoranthene	mg/kg	5.2	D	5.9		5.8		0.38		0.55		1.3		0.11	J		0.8
Bis(2-ethylhexyl)phthalate	mg/kg	0.2	J	0.17	J	0.26	J		U		U	0.36	J		U		
Butylbenzylphthalate	mg/kg	0.092	J		U		U		U		U		U		U		
Carbazole	mg/kg	0.86		1.3		0.99		0.069	J	0.14	J	0.32	J		U		
Chrysene	mg/kg	11	D	12	D	12	D	0.87		1.1		2.3		0.24	J		1
Dibenzo(a,h)anthracene	mg/kg	1.3		2.5		2.3		0.15	J	0.18	J	0.44	J		U		0.33
Dibenzofuran	mg/kg	0.52		0.61		0.88			U	0.096	J	0.097	J		U		
Dimethylphthalate	mg/kg		U		U		U		U		U		U		U		
Di-n-butylphthalate	mg/kg	0.066	J		U	0.12	J	0.11	J		U	0.078	J		U		
Fluoranthene	mg/kg	23	D	30	D	33	D	1.3		2.2		4.4		0.34	J		100
Fluorene	mg/kg	1.1		1.7		0.11	J	0.063	J	0.19	J	0.24	J		U		30
Indeno(1,2,3-cd)pyrene	mg/kg	3.6		5.9		5.4		0.53		0.69		1.5		0.11	J		0.5
Naphthalene	mg/kg	0.2	J	0.28	J	0.17	J		U		U		U		U		12
Pentachlorophenol	mg/kg		U		U		U	•	U	•	U		U		U		0.8
Phenanthrene	mg/kg	12	D	21	D	24	D	0.59		1.4		2.2		0.17	J		100
Phenol	mg/kg		U		U		U	•	U	•	U		U		U		0.33
Pyrene	mg/kg	20	D	26	D	0.63		1.3		1.8		3.4		0.41			100

	Sample Location			SS-01						SS-02						SS-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375
Parameter List	Sample Date			1/12/201	0					1/12/201	0					1/12/2010	0			Unrestricted Use Soil
USEPA Method 6010 &	•																			Cleanup Objectives
7471	Sample Type			Composi	te		,			Composit	te					Composit	e			(ppm)
Aluminum	mg/kg	6230	J	2800	J	3050	J	4830	J	5630	J	4970	J	4440	J	3810	J	3550	J	
Antimony	mg/kg		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ	
Arsenic	mg/kg	6		3.6		3.8		5.2		5.4		5.2		4.4		4.6		4.4		13
Barium	mg/kg	56.1	J	35.3	J	55.3	J	46.5	J	60.8	J	53.7	J	47.2	J	35.7	J	34.6	J	350
Beryllium	mg/kg	0.24	BJ	0.12	BJ	0.19	BJ	0.19	BJ	0.2	J	0.19	BJ	0.16	BJ	0.12	BJ	0.13	BJ	7.2
Cadmium	mg/kg	0.12	В	0.098	В	0.044	В	0.42		0.47		0.43		0.27		0.16	В	0.19	В	2.5
Calcium	mg/kg	154000		96500		79900		90500		63200		79500		91300		163000		152000		
Chromium	mg/kg	11.7	J	4.1	J	5.2	J	31.1	J	56.9	J	43.7	J	19.1	J	14.8	J	13.9	J	30
Cobalt	mg/kg	7	J	3.3	J	3.2	J	4.2	J	4.5	J	4.1	J	3.8	J	3.1	J	2.6	J	
Copper	mg/kg	25.4	J	11.5	J	14.3	J	44.4	J	68.5	J	55.1	J	35.1	J	25.9	J	24.9	J	50
Iron	mg/kg	14200	J	6750	J	10200	J	11600	J	16600	J	12300	J	9420	J	7970	J	7670	J	
Lead	mg/kg	12	J	3.8	J	4.5	J	39.4	J	51.6	J	38.9	J	33.3	J	20.7	J	18.6	J	63
Magnesium	mg/kg	18800	J	33900	J	16600	J	18800	J	9760	J	14200	J	9920	J	8680	J	16400	J	
Manganese	mg/kg	419	J	299	J	542	J	478	J	268	J	285	J	296	J	217	J	205	J	1,600
Mercury	mg/kg	0.014	В	0.0057	В		U	0.12		0.13		0.12		0.038	В	0.064		0.052		0.18
Nickel	mg/kg	20.1	J	8.9	J	10.8	J	19.4	J	26.9	J	23.1	J	13.3	J	11.8	J	10.4	J	30
Potassium	mg/kg	822	J	336	J	418	J	518	J	632	J	679	J	699	J	554	J	458	J	
Selenium	mg/kg		U		U		U		U		U		U		U		U		U	3.9
Silver	mg/kg		U		U		U	0.39	В	0.65	В	0.26	В		U	0.15	В	0.14	В	2
Sodium	mg/kg	103	J	61.8	J	45.2	J	82.4	J	59.2	J	65.7	J	60.4	J	81.2	J	79.9	J	
Thallium	mg/kg	2.5		2		1.8		1.8		1.1		1.4		1.5		2.3		2.4		
Vanadium	mg/kg	11.7	J	6.2	J	6.8	J	11	J	12	J	10.8	J	10.4	J	8.4	J	8.3	J	
Zinc	mg/kg	40.7	J	28	J	21.2	J	53.7	J	74.5	J	66	J	48.3	J	30.2	J	24.6	J	109

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million. mg/kg = Milligrams per kilogram.

J = Estimated Value.

U = Compound was analyzed for, but not detected.
B = Analyte found in associated method blank, as well as sample.

Bold values indicate exceedence of standard. Standards taken from Part 375 Unrestricted Soil Cleanup Objectives

Old Ley Creek Channel Site (7-34-074) Remedial Investigation Report Town of Salina, New York

										JIND II V DORG										
	Sample Location			SS-04						SS-05						SS-06				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date	0.0		1/12/201	0	122.		0.0		1/12/201	0	122.		0.0		1/12/201	0	12 2.		Cleanup Objectives
7471	Sample Type	İ		Composi						Composit						Composit				(ppm)
Aluminum	mg/kg	4400	J	6390	J	6430	J	4470	J	4490	J	7210		6560	J	5220	J	6080	J	(ppm)
Antimony	mg/kg		UJ		UJ		UJ		UJ		UJ		U		UJ		UJ		UJ	
Arsenic	mg/kg	5.3		5.7		6.8		5.8		5.2		5.4		4.1		6.6		4.8		13
Barium	mg/kg	34.4	J	54.4	J	61.3	J	43.8	J	33.4	U	48.4		45.2	J	49.4	J	48.6	J	350
Beryllium	mg/kg	0.16	BJ	0.22	J	0.26	J	0.16	BJ	0.17	BJ	0.22		0.23	J	0.2	BJ	0.2	BJ	7
Cadmium	mg/kg	0.26	В	0.33		0.61		0.46		0.18	В	0.23		0.18	В	0.36		0.15	В	3
Calcium	mg/kg	114000		51600		49000		117000		101000		64800		44700		64600		26300		
Chromium	mg/kg	18.5	J	26.7	J	56	J	13.4	J	11.2	J	18.2		9.7	J	9.5	J	8.8	J	30
Cobalt	mg/kg	3.9	J	5.1	J	6.2	J	4.6	J	3.9	J	5.7		5.8	J	5.8	J	5	J	
Copper	mg/kg	30.8	J	42.9	J	74.5	J	1240	J	38.9	J	51.1		27.5	J	37.6	J	27.6	J	50
Iron	mg/kg	9570	J	16100	J	21500	J	11200	J	9720	J	21200		17600	J	17700	J	16100	J	
Lead	mg/kg	32.9	J	41.3	J	60.5	J	43.6	J	20.2	J	33.5		18.3	J	56.1	J	21	J	63
Magnesium	mg/kg	13200	J	11500	J	11900	J	15900	J	13100	J	16400		15300	J	12000	J	5780	J	
Manganese	mg/kg	284	J	267	J	268	J	267	J	255	J	325		357	J	394	J	379	J	1,600
Mercury	mg/kg	0.1		0.14		0.17		0.096		0.074		0.12		0.058		0.043		0.046		0.18
Nickel	mg/kg	14	J	18.1	J	30.2	J	12.3	J	12.1	J	16.3		12.6	J	13.2	J	11.3	J	30
Potassium	mg/kg	662	J	751	J	743	J	856	J	697	J	664		924	J	814	J	619	J	
Selenium	mg/kg		U		U		U		U		U		U		U		U	0.83	В	4
Silver	mg/kg	0.21	В	0.38	В	0.73	В		U	0.2	В	0.11			U		U		U	2
Sodium	mg/kg	58.4	J	47.6	J	52	J	79.2	J	60.7	J	77.5		65.8	J	82.5	J	92.8	J	
Thallium	mg/kg	1.8		0.91		0.97		1.9		1.9		0.8		0.98		1.4		0.67	В	
Vanadium	mg/kg	11.6	J	12.7	J	13.6	J	10	J	9.1	J	14.1		12	J	11.7	J	12.8	J	
Zinc	mg/kg	48.2	J	59	J	97.2	J	61.6	J	31	J	60.1		31.6	J	60.2	J	35.5	J	109

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	Sample Location			SS-07						SS-08						SS-09				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date	0.0		1/12/201	0	122.		0.0		1/13/201	0	1221		0.0		1/13/201	0	12 2 .		Cleanup Objectives
7471	Sample Type			Composi						Composit						Composit				(ppm)
Aluminum	mg/kg	4210	J	6620	J	9070	J	9500	J	7600	J	9240	J	6090	J	7370	J	6500	J	(ppiii)
Antimony	mg/kg		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ	
Arsenic	mg/kg	5.3		4.1		5		14.8	J	11	J	6.8	J	6.3	J	3.8	J	5.5	J	13
Barium	mg/kg	44.1	J	105	J	44.9	J	264	J	117	J	101	J	78.6	J	46.9	J	40.2	J	350
Beryllium	mg/kg	0.18	BJ	0.23	J	0.31	J	0.52	J	0.3	BJ	0.47	J	0.29	J	0.24	J	0.17	BJ	7
Cadmium	mg/kg	0.67		0.46		0.45		3.2	J	1.1	J	0.47	J	2.3	J	0.42	J	0.94	J	3
Calcium	mg/kg	120000		58200		39500		34600	J	5340	J	4570	J	43100	J	43600	J	23200	J	
Chromium	mg/kg	29.3	J	24.6	J	24.2	J	1110	J	476	J	26	J	419	J	41.3	J	156	J	30
Cobalt	mg/kg	3.7	J	4.3	J	13.7	J	8.1	J	5.2	J	6.4	J	5.5	J	9.9	J	6.6	J	
Copper	mg/kg	46.2	J	49.7	J	108	J	403	J	246	J	121	J	495	J	85.7	J	847	J	50
Iron	mg/kg	8540	J	9950	J	23200	J	25200	J	18000	J	15200	J	13800	J	12500	J	27500	J	
Lead	mg/kg	52.8	J	49.6	J	45.3	J	301	J	83.6	J	32.5	J	116	J	17.3	J	22.6	J	63
Magnesium	mg/kg	7900	J	12400	J	17200	J	10900	J	3190	J	3660	J	11600	J	21100	J	9240	J	
Manganese	mg/kg	215	J	181	J	445	J	368	J	405	J	117	J	409	J	316	J	414	J	1,600
Mercury	mg/kg	0.15		0.13		0.17		0.51	J	0.19	J	0.6	J	0.25	J	0.092	J	0.066	J	0.18
Nickel	mg/kg	16.7	J	14.6	J	22.5	J	352	J	114	J	22.9	J	107	J	27.9	J	97.8	J	30
Potassium	mg/kg	610	J	617	J	1250	J	896	J	562	J	622	J	775	J	1180	J	740	J	
Selenium	mg/kg		U		U		U		UJ	1.2	J	1.3	J		UJ		UJ		UJ	4
Silver	mg/kg	0.69	В	0.59	В		U	3.6		1.1		5.4		3			U		U	2
Sodium	mg/kg	91	J	136	J	512	J	322	J	380	J	534	J	76.8	J	70.4	J	68.9	J	
Thallium	mg/kg	1.8		1.2		1.2		0.81	BJ	0.62	J		UJ	0.64	BJ	1.1	J	0.45	BJ	
Vanadium	mg/kg	14.1	J	15.1	J	16.6	J	41.7	J	23.4	J	20.2	J	14.3	J	11.4	J	15.6	J	
Zinc	mg/kg	61.8	J	60.3	J	71.5	J	375	J	118	J	114	J	321	J	77.3	J	2100	J	109

	Sample Location			SS-10					SS-11						SS-12				Part 375
Metal Parameter List	Sample Depth (in)	0-6		6-12		2-24	0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date			1/13/2010	1				1/13/201						1/13/201				Cleanup Objectives
7471	Sample Type		1 - 1	Composite					Composi	te				1 -	Composi			_	(ppm)
Aluminum	mg/kg	9890	J	NR	NF		5280	J	5410	J	5800	J	8290	J	2160	J	5660	J	
Antimony	mg/kg		UJ	NR	NF			UJ		UJ		UJ		UJ		UJ		UJ	
Arsenic	mg/kg	17.9	J	NR	NF		5.6	J	5.2	J	7.9	J	9.5	J	7.9	J	6	J	13
Barium	mg/kg	215	J	NR	NF		64	J	71.4	J	49.5	J	142	J	30.1	J	63.2	J	350
Beryllium	mg/kg	0.65	J	NR	NF		0.2	BJ	0.24	BJ	0.18	J	0.37	J	0.13	J	0.23	J	7
Cadmium	mg/kg	9.1	J	NR	NF		1.3	J	0.42	J	0.57	J	3.5	J	0.66	J	0.9	J	3
Calcium	mg/kg	39500	J	NR	NF		83700	J	10400	J	36400	J	22700	J	277000	J	20500	J	
Chromium	mg/kg	1770	J	NR	NF		32.5	J	19.7	J	19.8	J	416	J	57.1	J	115	J	30
Cobalt	mg/kg	9.5	J	NR	NF		3.8	J	4.9	J	6.1	J	7.6	J	1.9	J	5.2	J	
Copper	mg/kg	640	J	NR	NF		91.5	J	37.2	J	37.8	J	217	J	39.1	J	92.5	J	50
Iron	mg/kg	19700	J	NR	NF		10700	J	14100	J	34300	J	17200	J	6170	J	11800	J	
Lead	mg/kg	365	J	NR	NF		67.1	J	27	J	22	J	243	J	43.9	J	81	J	63
Magnesium	mg/kg	12200	J	NR	NF		36400	J	4440	J	11300	J	7760	J	2900	J	6450	J	
Manganese	mg/kg	534	J	NR	NF		176	J	186	J	301	J	301	J	257	J	251	J	1,600
Mercury	mg/kg	0.62	J	NR	NF		0.33	J	0.19	J	0.087	J	0.42	J	0.17	J	0.21	J	0.18
Nickel	mg/kg	630	J	NR	NF		15.6	J	13.6	J	15.2	J	161	J	27.4	J	47.3	J	30
Potassium	mg/kg	1030	J	NR	NF		561	J	501	J	570	J	1020	J	321	J	602	J	
Selenium	mg/kg		UJ	NR	NF			UJ		UJ		UJ		UJ		UJ		UJ	4
Silver	mg/kg	4.7		NR	NF		2.2		0.29			J	1.9		0.13		1.4		2
Sodium	mg/kg	986	J	NR	NF		69.8	J	45.2	J	53	J	79.4	J	96.2	J	54.4	J	
Thallium	mg/kg	1.1	BJ	NR	NF		1.1	J		UJ		UJ	0.53	BJ	3.5	J	0.28	BJ	
Vanadium	mg/kg	33.1	J	NR	NF		11.4	J	14.5	J	19.9	J	21.4	J	4.8	J	12.8	J	
Zinc	mg/kg	596	J	NR	NF		132	J	54.3	J	40.1	J	409	J	54.5	J	109	J	109
NOTE: NR = No Recovery.				•		•													

Old Ley Creek Channel Site (7-34-074)

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	Sample Location			SS-13					SS-14						SS-15				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24	0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
	Sample Date	0.0		1/13/2010)	12 2.	0.0		1/13/201	0	122.		0.0		1/13/2010)	122.		Cleanup Objectives
7471	Sample Type			Composit					Composit						Composit				(ppm)
Aluminum	mg/kg	9410	I	NR		NR	5270	I	5490	I	7500	I	4210	I	3300	Ī	NR		(ppiii)
Antimony	mg/kg	7.10	UJ	NR		NR	3270	UJ	5.70	UJ	0.19	J	0.2	BJ	3300	U	NR		
Arsenic	mg/kg	16.5	J	NR		NR	5.4	J	7.8	J	12.1	J	6.3	J	5,5	Ť	NR		13
Barium	mg/kg	203	J	NR		NR	37.4	J	45.2	J	47.5	J	38.1	J	40.9		NR		350
Beryllium	mg/kg	0.62	J	NR		NR	0.18	J	0.19	BJ	0.23	J	0.16	BJ	0.16	В	NR		7
Cadmium	mg/kg	4.8	J	NR		NR	0.23	J	0.19	BJ	0.23	J	0.58	J	0.56		NR		3
Calcium	mg/kg	36600	J	NR		NR	42400	J	37100	J	13200	J	170000	J	153000		NR		
Chromium	mg/kg	1570	J	NR		NR	10.1	J	8.1	J	10.9	J	8.8	J	12.8		NR		30
Cobalt	mg/kg	8.8	J	NR		NR	4.6	J	5.4	J	6.6	J	3.9	J	3.3		NR		
Copper	mg/kg	546	J	NR		NR	27.6	J	23.9	J	25.2	J	114	J	49.6		NR		50
Iron	mg/kg	18300	J	NR		NR	11900	J	13000	J	19800	J	9820	J	10800		NR		
Lead	mg/kg	358	J	NR		NR	32.3	J	18.8	J	17.1	J	85.3	J	94.5		NR		63
Magnesium	mg/kg	11700	J	NR		NR	8550	J	11600	J	6040	J	13300	J	43600		NR		
Manganese	mg/kg	376	J	NR		NR	345	J	514	J	296	J	269	J	387		NR		1,600
Mercury	mg/kg	0.87	J	NR		NR	0.074	J	0.069	J	0.081	J	0.14	J	0.063		NR		0.18
Nickel	mg/kg	512	J	NR		NR	11.4	J	11	J	12.9	J	10.9	J	8.6		NR		30
Potassium	mg/kg	1130	J	NR		NR	823	J	768	J	700	J	706	J	477		NR		
Selenium	mg/kg		UJ	NR		NR		UJ		UJ		UJ		UJ		U	NR		4
Silver	mg/kg	4.9		NR		NR		U		U		U		U		U	NR		2
Sodium	mg/kg	302	J	NR		NR	67.2	J	60	J	211	J	114	J	132		NR		
Thallium	mg/kg	0.91	J	NR		NR	0.83	J	0.98	BJ	0.26	J	2.4	J	2.8		NR		
Vanadium	mg/kg	29.9	J	NR		NR	12.4	J	11.9	J	16	J	8.9	J	9.9		NR		
Zinc	mg/kg	514	J	NR		NR	40.3	J	33.6	J	42.1	J	185	J	79.5	J	NR		109

Old Ley Creek Channel Site (7-34-074)

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	Sample Location			SS-16					SS-17						SS-18				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24	0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date			1/13/201	0				1/13/201	0	l.				1/13/201	0			Cleanup Objectives
7471	Sample Type			Composi	ite				Composi	te					Composit	te			(ppm)
Aluminum	mg/kg	11700		9050	J	NR	11000	J	13600	J	7540	*E	11600	J	9250	J	9500	J	
Antimony	mg/kg		U		UR	NR		UR		UR		UR		UR		UR		UR	
Arsenic	mg/kg	17.7		12.5	N*E	NR	21.5	J	17.4	J	15	J	21.2	J	13.7	J	16.6	J	13
Barium	mg/kg	221		160	J	NR	251	J	157	J	88.7	J	198	J	119	J	185	J	350
Beryllium	mg/kg	0.71		0.58	J	NR	0.85	J	0.71	J	0.36	J	0.82	J	0.57	J	0.66	J	7
Cadmium	mg/kg	7.9		4.4	J	NR	12.8	J	27.2	J	0.54	J	9.9	J	3.9	J	4.5	J	3
Calcium	mg/kg	34200		69600	J	NR	57600	J	29000	J	13900	J	41700	J	21300	J	35300	J	
Chromium	mg/kg	2260		1160		NR	2990		1980		31.8		2680		916		1630		30
Cobalt	mg/kg	9.4		7.6	J	NR	10.1	J	9.7	J	6	J	9.8	J	8.1	J	8.4	J	
Copper	mg/kg	1140		621	J	NR	778	J	1320	J	294	J	1170	J	919	J	490	J	50
Iron	mg/kg	26100		17100	J	NR	31700	J	38500	J	17100	J	31600	J	25500	J	25600	J	
Lead	mg/kg	351		267	J	NR	363	J	270	J	72.2	J	325	J	185	J	270	J	63
Magnesium	mg/kg	14500		20800	J	NR	13400	J	14200	J	7500	J	13000	J	9540	J	10300	J	
Manganese	mg/kg	305		319	J	NR	331	J	297	J	177	J	276	J	218	J	351	J	1,600
Mercury	mg/kg	0.6		0.25		NR	0.71		0.65		0.66		0.77		0.79		0.76		0.18
Nickel	mg/kg	587		352	J	NR	721	J	890	J	35.4	J	757	J	373	J	441	J	30
Potassium	mg/kg	1600		1440	J	NR	1330	J	1640	J	684	J	1440	J	941	J	1060	J	
Selenium	mg/kg	2	В	1.1	BJ	NR	1.2	J		UJ		UJ		UJ		UJ		UJ	4
Silver	mg/kg	4.8		2.9	J	NR	6	J	6.2	J	22.1	J	4.9	J	7.6	J	9.2	J	2
Sodium	mg/kg	141		139		NR	144		135		249		124		153		189		
Thallium	mg/kg	1.4		1.9	J	NR	1.7	J	1.3	J	0.58	BJ	1.7	J	0.89	J	1.2	J	
Vanadium	mg/kg	35.5		33.8	J	NR	38.9	J	35.6	J	16	J	35.7	J	22.8	J	29.1	J	
Zinc	mg/kg	571	J	385	J	NR	610	J	709	J	313	J	626	J	358	J	409	J	109

NOTE: E = Compound response exceeded the response of the highest standard of the initial calibration range of the instrument for that specific evidence.

N = Presumptive evidence of a compound.

TRADES 7 MILITAR DETECTIONS IN CONTROLLED ON																				
	Sample Location	SS-19						SS-20						SS-21						Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date	1/13/2010				12.2.		0.0		1/13/2010		122.		0.0		1/13/2010				Cleanup Objectives
7471	Sample Type	Composite					Composite						Composite						(ppm)	
Aluminum	mg/kg	12700	J	11700	J	19200	J	8450	J	11700	J	13300	J	5100	J	4030	J	NR		(ppiii)
Antimony	mg/kg		UR		UR		UR		UR		UR	0.43	BR		UR		UR	NR		
Arsenic	mg/kg	10.1	J	4.7	J	4.4	J	7.8	J	20.3	J	11.6	J	5.8	J	6	J	NR		13
Barium	mg/kg	122	J	89.9	J	251	J	117	J	207	J	165	J	58.7	J	67	J	NR		350
Beryllium	mg/kg	0.6	J	0.43	J	0.65	J	0.38	J	0.81	J	0.64	J	0.23	J	0.22	J	NR		7
Cadmium	mg/kg	5	J	0.63	J		UJ	2.2	J	35.8	J	5.4	J	0.83	J	1.3	J	NR		3
Calcium	mg/kg	22000	J	4280	J	3110	J	40000	J	32900	J	14900	J	113000	J	68600	J	NR		
Chromium	mg/kg	1110		56.3		24.7		490		3250		161		40		241		NR		30
Cobalt	mg/kg	9.2	J	6	J	8.8	J	6.7	J	7.7	J	9.1	J	4.6	J	3.4	J	NR		
Copper	mg/kg	620	J	35.5	J	7.2	J	191	J	1280	J	349	J	56.8	J	99.5	J	NR		50
Iron	mg/kg	27900	J	19700	J	28500	J	22600	J	29900	J	28500	J	13100	J	9250	J	NR		
Lead	mg/kg	159	J	23.1	J	9.4	J	131	J	283	J	218	J	94.8	J	220	J	NR		63
Magnesium	mg/kg	11900	J	3190	J	4200	J	15000	J	13500	J	8380	J	10100	J	6720	J	NR		
Manganese	mg/kg	419	J	198	J	169	J	369	J	232	J	312	J	270	J	171	J	NR		1,600
Mercury	mg/kg	0.35		0.079		0.048		0.29		0.41		0.5		0.088		0.24		NR		0.18
Nickel	mg/kg	357	J	41.3	J	22	J	153	J	766	J	200	J	24.6	J	67.9	J	NR		30
Potassium	mg/kg	1580	J	597	J	896	J	1310	J	1460	J	994	J	756	J	604	J	NR		
Selenium	mg/kg	1.5	BJ		UJ		UJ		UJ		UJ	0.85	J		UJ		UJ	NR		4
Silver	mg/kg	2.1	J		UJ		UJ	1.6	J	9.8	J	10.6	J	0.4	J	0.43	BJ	NR		2
Sodium	mg/kg	82.7		67.5		97.2		87.2		194		106		933		1070		NR		
Thallium	mg/kg	1.2	J	0.42	J	0.44	BJ	1.3	J	1.3	J	1.1	J	1.8	J	1.2	J	NR		
Vanadium	mg/kg	26.9	J	22.9	J	25.5	J	21.8	J	33.6	J	25.9	J	19.6	J	15.8	J	NR		
Zinc	mg/kg	364	J	59.7	J	36.2	J	202	J	639	J	324	J	107	J	124	J	NR		109

Old Ley Creek Channel Site (7-34-074)

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	Sample Location			SS-22						SS-23						SS-24				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date	0.0		1/13/201	0	12 21		0.0		1/13/2010	0	122.		0.0		1/13/201	0	122.		Cleanup Objectives
7471	Sample Type			Composi						Composit						Composi				(ppm)
Aluminum	mg/kg	9350	J	8360	J	13500	J	15200		14200		12400		10400		12100	Ī	9740		(ppiii)
Antimony	mg/kg	7550	UR	0500	UR	13500	UR	15200	U	11200	U	12.00	UJ	10100	UJ	12100	UJ	77.10	UJ	
Arsenic	mg/kg	8.8	J	20.7	J	17.5	J	14.3		13		15.5		19.6		20.9		15.2		13
Barium	mg/kg	161	J	207	J	238	J	254		343		208	J	306	J	246	J	119	J	350
Beryllium	mg/kg	0.5	J	0.67	J	0.66	J	1.1		0.78		0.77	J	0.81	J	0.81	J	0.54	J	7
Cadmium	mg/kg	6.5	J	7.3	J	7.4	J	9.3		19.5		8		8.2		17.4		3.4	Ť	3
Calcium	mg/kg	67000	J	38700	J	32300	J	44900		34400		29700		37300		46900		14100		
Chromium	mg/kg	630		2670		1690		1980		2500		2080	J	3110	J	3320	J	525	J	30
Cobalt	mg/kg	8.9	J	8.1	J	9.2	J	14.1		12.2		9.6	J	9.6	J	9.9	J	8	J	
Copper	mg/kg	280	J	571	J	1200	J	646		1550		1460	J	741	J	1420	J	546	J	50
Iron	mg/kg	26800	J	26100	J	36400	J	26300		32700		24000	J	21400	J	34500	J	29600	J	
Lead	mg/kg	416	J	346	J	270	J	522		289		309	J	380	J	340	J	115	J	63
Magnesium	mg/kg	12700	J	9870	J	13400	J	16700		14000		13900	J	11900	J	13800	J	7220	J	
Manganese	mg/kg	355	J	237	J	251	J	672		565		278	J	340	J	412	J	295	J	1,600
Mercury	mg/kg	0.47		0.6		0.79		0.72		0.75		0.61		0.87		0.87		0.97		0.18
Nickel	mg/kg	236	J	589	J	466	J	690		776		514	J	725	J	716	J	193	J	30
Potassium	mg/kg	1410	J	1010	J	1580	J	1840		1630		1510	J	1410	J	1400	J	958	J	
Selenium	mg/kg		UJ		UJ		UJ		U	1.5	В		U	2.2		1.2	В		U	4
Silver	mg/kg	1.3	J	3.2	J	6.6	J	5.2		9.7		7.3		5.6		7.9		7		2
Sodium	mg/kg	1880		1750		2910		1950		2120		1360		327		633		551		
Thallium	mg/kg	1.8	J	1.1	J	1.3	J		U		U	1.3		1.7		1.7		0.96		
Vanadium	mg/kg	33.9	J	34	J	30.9	J	45.2		36.6		32.7		36.9		34.9		23.3		
Zinc	mg/kg	527	J	485	J	696	J	778		844		682	J	629	J	775	J	304	J	109

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	Sample Location			SS-25						SS-26						SS-27				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date			4/26/201	.0					4/26/201)	L				4/26/201	0			Cleanup Objectives
7471	Sample Type			Composi	te					Composit	e					Composit	te			(ppm)
Aluminum	mg/kg	10500		12100		10000		5440		4780		5630		7110		3380		5400		
Antimony	mg/kg		U		U		U		U		U		U		U		U		U	
Arsenic	mg/kg	11.4		2.4		5.8		4.6		4.1		4.5		6.1		3.2		9		13
Barium	mg/kg	169		244		110		54.6		61.9		50.9		52.1		38.7		44.7		350
Beryllium	mg/kg	0.48		0.32		0.41		0.23		0.2	В	0.24		0.29	В	0.13	В	0.21	В	7
Cadmium	mg/kg	6.1		0.48		1.6		1.3		1.8		0.84		1.4		1.9		0.81		3
Calcium	mg/kg	22300		5670		21000		33500		109000		84200		42900		25000		29400		
Chromium	mg/kg	809	*	55.3	*	147	*	76.6	*	29.7	*	60.4	*	26.1	*	23.3	*	12.3	*	30
Cobalt	mg/kg	9.3		4.3		6.2		5		7.8		5.5		5.7		5.1		5		
Copper	mg/kg	436		32.7		119		60.3		34.7		78.7		43.3		50.7		28.9		50
Iron	mg/kg	66100	*	13800	*	19700	*	15600	*	15400	*	18200	*	16800	*	67200	*	18200	*	
Lead	mg/kg	190	Е	23.6	E	109	E	55.7	E	15.1	E	35.4	E	52.4	E	33.2	E	19.6	E	63
Magnesium	mg/kg	6880	*	3500	*	8400	*	7150	*	2950	*	5490	*	19500	*	7980	*	8890	*	
Manganese	mg/kg	459	*	113	*	294	*	274	*	853	*	286	*	370	*	403	*	318	*	1,600
Mercury	mg/kg	0.3		0.1		0.052		0.18		0.015	В	0.058		0.18		0.17		0.097		0.18
Nickel	mg/kg	345	E	26.3	E	64.4	E	35.5	E	30.3	E	31.2	E	18.8	E	15.9	E	12	E	30
Potassium	mg/kg	1210		923		908		940		1220		1260		1520		743		929		
Selenium	mg/kg		U		U		U	0.75	В	2.4		1.7			U		U		U	4
Silver	mg/kg	2.3			U	0.68	В	0.26	В		U		U		U		U		U	2
Sodium	mg/kg	105		76.6		94.7		70.7		77.3		66.6		136		79		101		
Thallium	mg/kg		U		U		U		U	1.1		0.27	В	0.46	В		U		U	
Vanadium	mg/kg	23.5		18.5		20.9		12.6		10.9		12.8		15.3		7.6		12		
Zinc	mg/kg	430	E	54.7	E	162	E	123	E	88.7	Е	67.8	E	344	E	615	E	218	E	109

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	Sample Location			SS-28						SS-29						SS-30				Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date			4/26/201	0					4/26/201	0					4/26/201	0			Cleanup Objectives
7471	Sample Type			Composi	te					Composit	e					Composit	te			(ppm)
Aluminum	mg/kg	9240		7850		5270		10300		8860		8320		10800		7880		8150		
Antimony	mg/kg		U		U		U		U		U		U		U		U		U	
Arsenic	mg/kg	12.7		6.8		5		11.7		9.4		9		9.4		4.6		5.9		13
Barium	mg/kg	201		93		78.4		170		100		78.4		119		57.9		58.9		350
Beryllium	mg/kg	0.63		0.34		0.23		0.6		0.45		0.35		0.59		0.34		0.32		7
Cadmium	mg/kg	6.1		1.6		0.55		4.1		1.3		0.64		3		0.74		0.3		3
Calcium	mg/kg	35900		55100		42800		29900		15900		13600		22400		9170		7090		
Chromium	mg/kg	1280	*	265	*	45.6	*	2050	*	538	*	37	*	634	*	49.3	*	13.5	*	30
Cobalt	mg/kg	7.8		5.2		4.9		8.5		7.3		6.3		8		6.7		6.3		
Copper	mg/kg	401		242		94.1		1080		450		85.5		341		48.5		44.1		50
Iron	mg/kg	18100	*	14300	*	14900	*	25400	*	23400	*	21800	*	24300	*	17800	*	18400	*	
Lead	mg/kg	253	Е	62.6	Е	29.6	Е	248	Е	91.7	Е	29.1	Е	153	Е	23	Е	13.9	Е	63
Magnesium	mg/kg	10300	*	11400	*	11900	*	10400	*	7190	*	6170	*	8850	*	5080	*	4720	*	
Manganese	mg/kg	309	*	400	*	358	*	876	*	709	*	415	*	322	*	204	*	173	*	1,600
Mercury	mg/kg		U	0.43		0.69		0.5		0.28		0.89		0.31			U	1.4		0.18
Nickel	mg/kg	428	E	101	Е	25	E	438	Е	142	Е	23.2	E	220	Е	32	Е	16.3	Е	30
Potassium	mg/kg	1650		1940		897		1470		1090		971		1250		790		764		
Selenium	mg/kg	1.8	В		U		U	3.4			U		U	0.97	В		U		U	4
Silver	mg/kg	4.3		2.1		4.4		3.8		2.5		4.7		2.8		0.84	В	1.5		2
Sodium	mg/kg	373		440		270		841		490		393		500		296		269		
Thallium	mg/kg		U		U		U		U		U		U		U		U		U	
Vanadium	mg/kg	30.1		17.3		11.8		29.9		19.6		16.5		26.7		15.7		16		
Zinc	mg/kg	427	E	152	E	91.6	E	480	E	213	Е	94.1	E	264	E	66.2	E	62.6	E	109

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								SS-DUP	'	SS-DUP02	SS	SS-DUP03	SS-	SS-DUP-	-	
	Sample Location			SS-31				SS-06		12		17		SS-26		Part 375
Parameter List	Sample Depth (in)	0-6		6-12		12-24		6-12		12-24		0-6		12-14		Unrestricted Use Soil
USEPA Method 6010 &	Sample Date			4/26/201	0			1/12/201	0	1/13/201	0	1/13/201	0	4/26/201	.0	Cleanup Objectives
7471	Sample Type			Composi	te			Composit	e	Composit	e	Composit	te	Composi	te	(ppm)
Aluminum	mg/kg	2540		3980		3510		4250		5000		8530		5540		
Antimony	mg/kg		U		U		U		U		UJ		UJ		U	
Arsenic	mg/kg	2.8		4.4	N*	4.2	N*	4.3		5.5		15.7		4.7		13
Barium	mg/kg	46.7		97.8	*E	50.5	*E	35		41	J	178	J	28		350
Beryllium	mg/kg	0.12	В	0.18	В	0.18	В	0.15	В	0.2	J	0.64	J	0.27		7
Cadmium	mg/kg	0.98		1.1		0.92		0.16		0.97		10.6		0.3		3
Calcium	mg/kg	63800		108000	E	135000	E	76800		178000		36500		84100		
Chromium	mg/kg	23.5	*	33	E	43.2	E	6.9		60	J	2180	J	12.4	*	
Cobalt	mg/kg	2.6		3.5	E	2.7	E	3.6		3.6	J	7.7	J	5.1		
Copper	mg/kg	56.1		81.5		67.2		21		58.8	J	584	J	21.8		50
Iron	mg/kg	13200	*	16600	E	14300	E	9440		9360	J	22900	J	21400	*	
Lead	mg/kg	176	E	282	N*E	353	N*E	35.1		43.7	J	258	J	5.7	E	63
Magnesium	mg/kg	7770	*	14200	E	21900	E	11800		7870	J	9620	J	2950	*	
Manganese	mg/kg	209	*	279	E	251	E	283		237	J	248	J	259	*	1,600
Mercury	mg/kg	0.28		0.25		0.21		0.05		0.28		0.81		0.1		0.18
Nickel	mg/kg	12.4	Е	16.7	Е	17.2	E	8.6		26	J	592	J	15.1	E	30
Potassium	mg/kg	462		633	*	491	*	645		877	J	1080	J	1270		
Selenium	mg/kg	0.89	В	1.2	В	2			U		U		U		U	4
Silver	mg/kg		U		U		U		U	0.71	В	4.9			U	2
Sodium	mg/kg	74.8		140		164		92.4		119		103		63.1		
Thallium	mg/kg		U	0.66	В	1.1		1.4		2.4		1.3		0.48	В	
Vanadium	mg/kg	12.6		16.5		12.1		9.1		10.1		28.8		14.5		
Zinc	mg/kg	163	E	239	NE	155	NE	31.7		59.4	J	487	J	25.9	E	109

TABLE 3-10 POLYCHLORINATED BIPEHNYL DETECTIONS IN SURFACE SOIL

	Sample Location			SS-01						SS-02						SS-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		
D	Sample Date			1/12/2010		•				1/12/2010	0	•				1/12/2010				Part 375 Unrestricted
Parameter List USEPA Method 8082	Sample Type			Composite						Composit	te					Composite	•			Use Soil Cleanup Objectives (ppm)
Aroclor-1248	mg/kg	0.047			U		U	1.5		3.1		2.7		0.35		0.45		0.84		NA
Aroclor-1254	mg/kg		U		U		U	0.77		1.5		1.3		0.22		0.26		0.45		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	0.047		0		0		2.27		4.6		4		0.57		0.71		1.29		0.1
		1																		
	Sample Location			SS-04						SS-05						SS-06				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/12/2010		•				1/12/2010	0					1/12/2010				Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composit	te					Composite)			Objectives (ppm)
Aroclor-1248	mg/kg	0.79		1.2		5.8		0.4		0.49	J	1	J	0.1			U		U	NA
Aroclor-1254	mg/kg	0.46		0.6		2.9		0.27		0.33		0.6		0.079			U		U	NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	1.25		1.8		8.7		0.67		0.82		1.6		0.179		0		0		0.1
		ı																		
	Sample Location			SS-07						SS-08						SS-09				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/12/2010						1/13/2010	0					1/13/2010				Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composit	te					Composite	,			Objectives (ppm)
Aroclor-1248	mg/kg	2.5		1		0.99	D	100		15		1.7	J	15		1.6		11		NA
Aroclor-1254	mg/kg	1.5		0.72		0.52		48		8		0.83		5.6		0.64		3.5		NA
Aroclor-1260	mg/kg		U	_	U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	4		1.72		1.51		148		23		2.53		20.6		2.24		14.5		0.1

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.

mg/kg = Milligrams per kilogram.

U = Compound was analyzed for, but not detected.

NA =

J = Estimated Value.

D = Secondary dilution factor.

Bold values indicate exceedence of standard.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

TABLE 3-10 POLYCHLORINATED BIPEHNYL DETECTIONS IN SURFACE SOIL

				TABLE 3-10	OIOL	Teriboran	77111	D DII DIII (LLDL	I DOTTOTIO	1,50	MITTEL BOIL	_							T .
	Sample Location			SS-10						SS-11						SS-12				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/13/2010)					1/13/201	0					1/13/2010)			Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite	e					Composi	e					Composit	e			Objectives (ppm)
Aroclor-1248	mg/kg	140		NA		NA		1		0.69		0.69		34		19		11		NA
Aroclor-1254	mg/kg	57		NA		NA		0.55		0.36		0.36		14		8.3		4.4		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	197		0		0		1.55		1.05		1.05		48		27.3		15.4		0.1
1				22.12						00.11						00.15				
	Sample Location			SS-13	-	10.01		0.5	1	SS-14	-	12.21				SS-15		10.01		
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/13/2010						1/13/201						1/13/2010				Use Soil Cleanup
USEPA Method 8082	Sample Type		_	Composite	2					Composi						Composit	9		_	Objectives (ppm)
Aroclor-1248	mg/kg	190		NA		NA		0.16	J	0.042	J		U	0.099	J	0.068	J	NR		NA
Aroclor-1254	mg/kg	76	4	NA		NA	<u> </u>	0.092			U	0.083		0.052	J	0.044	J	NR		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U	NR		NA
Total Aroclor	mg/kg	266		0		0		0.252		0.042		0.083		0.151		0.112				0.1
													-							
	Sample Location			SS-16						SS-17						SS-18				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/13/2010)					1/13/201	0					1/13/2010)			Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite	е					Composi	e					Composit	е			Objectives (ppm)
Aroclor-1248	mg/kg	180	J	210		NR		70		99		0.74		94	D	49		41		NA
Aroclor-1254	mg/kg	83			U	NR			U		U		U		U		U		U	NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	263		210				70		99		0.74		94		49		41		0.1
NOTE: NR = No Recovery.		_																		

TABLE 3-10 POLYCHLORINATED BIPEHNYL DETECTIONS IN SURFACE SOIL

ir-		1		1ABLE 3-10	FUI	LICHLOKIN	AIL	DBIFERNI	LDEI	ECHONSI	IN SU	JRFACE SOIL	_							1
	Sample Location			SS-19						SS-20						SS-21				
	Sample Depth (in)	0-6		6-12	1	12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date	0.0		1/13/2010		12 24		0.0		1/13/2010)	12 24		0.0		1/13/2010		12 24		Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composit				1		Composite				Objectives (ppm)
Aroclor-1248	mg/kg	34		3.1		0.17		39		100	Ī	24		0.6		3.7	J	NR	T	NA
Aroclor-1254	mg/kg	-	U		U		U		U		U		U		U		U	NR		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	34		3.1		0.17		39		100		24		0.6		3.7		0	T	0.1
																				ļ
	Sample Location			SS-22						SS-23		1		ļ		SS-24				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			1/13/2010						1/13/2010						1/13/2010				Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composit	e					Composite				Objectives (ppm)
Aroclor-1248	mg/kg	26		71	J	380		93		120		300		81		170		24		NA
Aroclor-1254	mg/kg		U		U		U		U		U	140		32		76		10		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	26		71		380		93		120		440		113		246		34		0.1
		ı						I												
	Sample Location			SS-25						SS-26						SS-27				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010						4/26/2010)					4/26/2010	1			Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite						Composit	e					Composite				Objectives (ppm)
Aroclor-1248	mg/kg	87		35		25		9.1		15		32		1.5		1.1		0.32		NA
Aroclor-1254	mg/kg	36		17		9.8		5.6		6.6		12		1.3		0.99		0.29		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	123		52		34.8		14.7		21.6		44		2.8		2.09		0.61		0.1

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	Sample Location			SS-28						SS-29		_				SS-30				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010)					4/26/2010	0	•				4/26/2010)			Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite	9					Composit	e					Composit	e			Objectives (ppm)
Aroclor-1248	mg/kg	130		48		7		320		68		5.1		76		11		3.1		NA
Aroclor-1254	mg/kg	55		16		2.6		100		21		1.7		35		4.8		1.5		NA
Aroclor-1260	mg/kg		U		U		U		U		U		U		U		U		U	NA
Total Aroclor	mg/kg	185		64		9.6		420		89		6.8		111		15.8		4.6		0.1
								SS-DUP		SS-DUP02	2	SS-DUP03	3	SS-DUP-0	1					
	Sample Location			SS-31				SS-06		SS-12		SS-17		SS-26						
	Sample Depth (in)	0-6		6-12		12-24		6-12		12-24		0-6		12-14						Part 375 Unrestricted
Parameter List	Sample Date			4/26/2010)			1/12/2010	1	1/13/2010)	1/13/2010)	4/26/2010)					Use Soil Cleanup
USEPA Method 8082	Sample Type			Composite)			Composite	•	Composite	е	Composite	9	Composite	e					Objectives (ppm)
Aroclor-1248	mg/kg	0.36		0.29		1.4			U	7.9		42		27						NA
Aroclor-1254	mg/kg								U	3.2		19		9.3						NA
Aroclor-1260	mg/kg	0.91		0.21		0.54														NA

TABLE 3-11 PESTICIDE DETECTIONS IN SURFACE SOIL

	Sample Location			SS-01						SS-02						SS-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375
Parameter List	Sample Date			1/12/2010)					1/12/201	0					1/12/201	0			Unrestricted Use
USEPA Method 8081	Sample Type			Composite	e					Composi	te					Composit	te			Soil Cleanup Objectives (ppm)
4,4'-DDD	mg/kg		U		U		U		U		U		U		U		U		U	0.0033
4,4'-DDE	mg/kg		U		U		U		U		U		U		U	0.004		0.0068		0.0033
4,4'-DDT	mg/kg		U		U		U	0.024		0.041			U	0.0074		0.0096		0.012		0.0033
Aldrin	mg/kg		U		U		U		U		U		U		U		U		U	0.005
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.094
beta-BHC	mg/kg		U		U		U		U		U		U		U	0.0033	P		U	0.036
delta-BHC	mg/kg		U		U		U	0.04		0.11		0.14		0.0083		0.012		0.019		0.04
Dieldrin	mg/kg		U		U		U		U		U		U		U	0.0043	J	0.006	J	0.005
Endosulfan I	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endosulfan II	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg		U		U		U		U		U		U	0.0054	J		U	0.0041	J	2.4
Endrin	mg/kg		U		U		U		U		U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U		U		U		U		U		U		U		U		U	
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-Chlordane	mg/kg		U		U		U	0.016		0.042	J		U		U		U		U	
			U		U		U		U	0.024			U		U		U		U	0.042
Heptachlor	mg/kg		1 0 1																	
Heptachlor	mg/kg mg/kg		U		U		U		U		U		U		U		U		U	
	mg/kg mg/kg						U		U		U		U		U		U		U	
Heptachlor Heptachlor epoxide Methoxychlor	mg/kg mg/kg Sample Location Sample Depth (in)	0-6	U	SS-04 6-12	U	12-24		0-6		SS-05 6-12	U	12-24		0-6		SS-06 6-12	U	12-24		Part 375 Unrestricted Use
Heptachlor Heptachlor epoxide Methoxychlor Parameter List	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date	0-6	U	6-12 1/12/2010	UUUU	12-24		0-6		6-12 1/12/201	0	12-24		0-6		6-12 1/12/201	0	12-24		Part 375 Unrestricted Use Soil Cleanup
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type	0-6	U	6-12	U U	12-24	U		U	6-12	U 0 te	12-24	U	0-6	U	6-12 1/12/201 Composit	U O tte	12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date	0-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/12/2010 Composite	U U	12-24	U	0.0077		6-12 1/12/201 Composit	0	12-24	U	0-6	U	6-12 1/12/201	0 te J	12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type		U	6-12 1/12/2010 Composite	U U		U	0.0077 0.005	U	6-12 1/12/201 Composit 0.0052	U 0 te		U	0-6	U	6-12 1/12/2010 Composit 0.0041	0 tte U	12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4*-DDD 4,4*-DDE 4,4*-DDT	sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.013	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/12/2010 Composite	U U U	12-24	U	0.0077	J	6-12 1/12/201 Composit	0 te U J	12-24	U	0-6	U U U	6-12 1/12/201 Composit	0 te	12-24	UUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg		U U U U U	6-12 1/12/2010 Composite	U U U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0077 0.005	J	6-12 1/12/201 Composit 0.0052	U O te U J U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0-6	U U U U	6-12 1/12/2010 Composit 0.0041	0 te J J U J U	12-24	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/12/2010 Composite 0.008 0.013	U U U U U U U U U U U U U U U U U U U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0077 0.005 0.014	J	6-12 1/12/201 Composit 0.0052 0.013	0 te U J	0.018	U	0-6	U U U U U U	6-12 1/12/2010 Composit 0.0041	0 te	12-24	U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094
Heptachlor Heptachlor envide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC	mg/kg mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	U U U U U	6-12 1/12/2010 Composite 0.008 0.013	U U U	0.078	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0.0077 0.005 0.014	J	6-12 1/12/201 Composit 0.0052 0.013	U O te U J U	0.018	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	0-6	U U U U U U U	6-12 1/12/2010 Composit 0.0041	0 te	12-24	U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC	mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	U U U U U	6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U P P		U U U U U	0.0077 0.005 0.014 0.0023 0.0097	J U U U P	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061	U U U U U J	0.018	U U U	0-6	U U U U U U U U	6-12 1/12/2010 Composit 0.0041	0 te	12-24	U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin	mg/kg mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	U U U U U U U	6-12 1/12/2010 Composite 0.008 0.013	U U U U P P U U U U U U U U U U U U U U	0.078	U U U U U U	0.0077 0.005 0.014	U U U U P	6-12 1/12/201 Composit 0.0052 0.013	0 te U U U U J J J	0.018	U U U	0-6	U U U U U U U U U	6-12 1/12/2010 Composit 0.0041	0 te	12-24	U U U U U U U U U U U	Part 375 We soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	mg/kg mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	U U U U U U U U U U U	6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U U U U U U U U U U U U U U U U	0.078	U U U U U	0.0077 0.005 0.014 0.0023 0.0097	U U U P D U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061	0 te U U U U U U U U U U U U U U U U U U	0.018	U U U	0-6	U U U U U U U U U U U U U U	6-12 1/12/2010 Composit 0.0041	0 te U U U U U U U U U U U	12-24	U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDE 4,4'-DDE ddrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II	mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.013	U U U U U U U U	6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U U U U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097	U U U P U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061	O te U U U U U U U U U U U	0.018	U U U U U U U U U U U U U U U U U U U	0-6		6-12 1/12/2010 Composit 0.0041	0 0 0 U U U U U U	12-24	U U U U U U U U U U U U U	Part 375 Part 375 University of the second
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan II Endosulfan uslfate	mg/kg mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.013	U U U U U U U U U U	6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U V V V V V V V V V V V V V V V V	0.078		0.0077 0.005 0.014 0.0023 0.0097	U U U U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061	0 tee U J J J U U U U U U	0.018	U U U U U U U U U U U U U U U U	0-6		6-12 1/12/2010 Composit 0.0041	00 U U U U U U U U U U U U U U U U U U	12-24	U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Obiectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 0.005 2.4 2.4
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC detla-BHC detla-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan I Endosulfan sulfate Endrin	mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097	J U U U P U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061		0.018	U U U U U U U U U U U U U U U U U U U	0-6		6-12 1/12/2010 Composit 0.0041	0 tte J U U U U U U U	12-24		Part 375 Part 375 University of the second
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4*-DDD 4,4*-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan sulfate Endrin	mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U U U U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097	J U U U P U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061		0.018		0-6		6-12 1/12/2010 Composit 0.0041	0 tte J U U U U U U U U	12-24		Part 375 Unrestricted Use Soil Cleanup Obiectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 0.005 2.4 2.4
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan sulfate Endrin Endrin aldehyde Endrin aldehyde Endrin iedende	mg/kg mg/kg mg/kg mg/kg Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.013	U U U U U U U U U U U U U U U U U U U	6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003 0.0068	U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097	J U U U U U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061		0.018		0-6		6-12 1/12/2010 Composit 0.0041	U	12-24		Part 375 Umestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 0.005 2.4 2.4 2.4 0.014
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDE 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan I Endosulfan i Endrin aldehyde Endrin ketone gamma-BHC (Lindane)	mg/kg mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003	U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097 0.0055	J U U U P U U U U	6-12 1/12/201 Composi 0.0052 0.013 0.0044 0.0061 0.0058		0.018		0-6		6-12 1/12/2010 Composit 0.0041	U	12:24		Part 375 Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.004 0.036 0.04 0.005 2.4 2.4 2.4 0.014
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Addrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan sulfate Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-BHC (Lindane)	mg/kg mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composit 0.008 0.013 0.003 0.003 0.0068	U U U U U U U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097	J U U U U U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061 0.0058	0 te U U U U U U U U U U U U U U U U U U	0.018		0-6		6-12 1/12/2010 Composit 0.0041	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12-24		Part 375 Unrestricted Use Soil Cleanup Obiectives (ppm) 0.0033 0.0033 0.0035 0.004 0.004 0.005 2.4 2.4 0.014
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan sulfate Endrin aldehyde Endrin aldehyde Endrin aldehyde Endrin aldehyde Endrin setone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-Chlordane	mg/kg mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composite 0.008 0.013 0.0033 0.003 0.0068	U U U U U U U U U U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097 0.0055	J U U U P U U U U U U	6-12 1/12/201 Composi 0.0052 0.013 0.0044 0.0061 0.0058	00 tee U U U U U U U U U U U U U U F P	0.018		0-6		6-12 1/12/2010 Composit 0.0041	U U U U U U U U U U U U U U U U U U U	12:24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 0.05 2.4 2.4 0.014 0.042
Heptachlor Heptachlor epoxide Methoxychlor Parameter List USEPA Method 8081 4,4'-DDD 4,4'-DDT Addrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan sulfate Endrin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-BHC (Lindane)	mg/kg mg/kg mg/kg mg/kg Sample Depth (in) Sample Date Sample Type mg/kg	0.013		6-12 1/12/2010 Composit 0.008 0.013 0.003 0.003 0.0068	U U U U U U U U U U	0.078		0.0077 0.005 0.014 0.0023 0.0097 0.0055	J U U U U U U U U	6-12 1/12/201 Composit 0.0052 0.013 0.0044 0.0061 0.0058	0 te U U U U U U U U U U U U U U U U U U	0.018		0-6		6-12 1/12/2010 Composit 0.0041	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12-24		Part 375 Umestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 2.4 2.4 0.014

NOTE: USEPA = United States Environmental Protection Agency.

ppm = Parts per million.

4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

mg/kg = Milligrams per kilogram.
U = Compound was analyzed for, but not detected.

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene 4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

= Estimated value.

Standards taken from Part 375 Unrestricted Soil Cleanup Objectives.

Old Ley Creek Channel Site (7-34-074) Town of Salina, New York Remedial Investigation Report

					TAB	LE 3-11 PES	TICII	DE DETECT	IONS	IN SURFAC	E SO	IL								
	Sample Location			SS-07						SS-08						SS-09				Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			1/12/201)					1/13/201	.0	I				1/13/201	0			Soil Cleanup
USEPA Method 8081	Sample Type			Composit	e					Composi	te					Composit	e			Objectives (ppm)
4.4'-DDD	mg/kg		U	0.0054	J	0.013	J	1.1	J		U		U		U		U		U	0.0033
4,4'-DDE	mg/kg	0.025	J	0.013	J	0.014	J	1.3			U		U	0.16		0.016			U	0.0033
4,4'-DDT	mg/kg	0.061		0.026		0.029		1.6			U		U	0.19		0.02			U	0.0033
Aldrin	mg/kg		U		U		U		U		U		U		U		U		U	0.005
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.094
beta-BHC	mg/kg		U	0.0047		0.0048			U		U		U		U		U		U	0.036
delta-BHC	mg/kg	0.025		0.006	J	0.0098		1.9	J	0.44	J	0.053	J	0.42	J	0.04	J	0.6	J	0.04
Dieldrin	mg/kg	0.017		0.0078	J	0.0081			U		U		U		U	0.0082	J		U	0.005
Endosulfan I	mg/kg		U	0.0022	J	0.0026	J		U		U		U		U		U		U	2.4
Endosulfan II	mg/kg		U		U		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg	0.02	J	0.0062	J	0.01	J		U		U		U		U		U		U	2.4
Endrin	mg/kg		U		U		U		U		U		U		U		U		U	0.014
Endrin aldehyde	mg/kg		U	0.0056	J	0.01	J		U		U		U		U		U		U	
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U	0.0021	J		U		U		U		U		U		U		U	
gamma-Chlordane	mg/kg		U		U	0.014		1.8	J	0.31		0.031	J	0.23	J	0.02	J	0.19	J	
Heptachlor	mg/kg		U	0.0043		0.005		1	J	0.26		0.027		0.092	J	0.0066	J		U	0.042
Heptachlor epoxide	mg/kg		U		U		U		U		U		U		U		U		U	
Methoxychlor	mg/kg		U		U		U		U		U		U		U		U		U	
							-						_							I
				00.40						99.44			T			00.10				
	Sample Location	0.6		SS-10		12.24		0.6		SS-11		12.24		0.6		SS-12		12.24		Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Depth (in) Sample Date	0-6		6-12 1/13/201		12-24		0-6		6-12 1/13/201		12-24		0-6		6-12 1/13/201		12-24		Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Depth (in) Sample Date Sample Type			6-12 1/13/201 Composit						6-12	te	12-24				6-12 1/13/201 Composit	e			Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8081 4,4'-DDD	Sample Depth (in) Sample Date Sample Type mg/kg	1.3	J	6-12 1/13/201 Composit NR		NR		0.0057	J	6-12 1/13/201 Composi	te U		U	0-6	J	6-12 1/13/201 Composit 0.23		0.099	J	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	1.3	J	6-12 1/13/2010 Composit NR NR		NR NR		0.0057 0.0088]	6-12 1/13/201 Composi 0.0064	te	0.0068	n n	0.36	J	6-12 1/13/2010 Composit 0.23 0.24	e	0.099 0.12	J	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	1.3		6-12 1/13/201 Composit NR	e	NR		0.0057	J	6-12 1/13/201 Composi	U J		J		U	6-12 1/13/201 Composit 0.23	J J	0.099		Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	1.3	U	6-12 1/13/2010 Composit NR NR	U	NR NR	U	0.0057 0.0088	J U	6-12 1/13/201 Composi 0.0064	te U	0.0068	J	0.36	U	6-12 1/13/2010 Composit 0.23 0.24	J	0.099 0.12	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3	U	6-12 1/13/201 Composit NR NR NR	e	NR NR NR	U	0.0057 0.0088	U U	6-12 1/13/201 Composi 0.0064	U J U U	0.0068 0.014	U	0.36	U U U	6-12 1/13/2010 Composit 0.23 0.24	U U	0.099 0.12	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3 1.7 2.1	U U U	6-12 1/13/2010 Composit NR NR NR NR	U	NR NR NR		0.0057 0.0088 0.023	J U	6-12 1/13/201 Composi 0.0064 0.014	te U	0.0068 0.014 0.0024	J U J	0.36	U	6-12 1/13/2010 Composit 0.23 0.24 0.33	J	0.099 0.12 0.15	U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3 1.7 2.1	U U U J	6-12 1/13/201 Composit NR NR NR NR	U	NR NR NR		0.0057 0.0088 0.023	U U U	6-12 1/13/201 Composi 0.0064	U U U U	0.0068 0.014	J D	0.36	U U U U	6-12 1/13/2010 Composit 0.23 0.24	U U U	0.099 0.12	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3 1.7 2.1 1.4 0.94	U U U J	6-12 1/13/201 Composit NR NR NR NR	U	NR NR NR NR		0.0057 0.0088 0.023	U U U	6-12 1/13/201 Composi 0.0064 0.014	U U U U	0.0068 0.014 0.0024	I I I	0.36	U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U	0.099 0.12 0.15	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04
USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3 1.7 2.1	U U U J J	6-12 1/13/201 Composit NR NR NR NR	U	NR NR NR NR NR		0.0057 0.0088 0.023	J U U U	6-12 1/13/201 Composi 0.0064 0.014	U U U U U	0.0068 0.014 0.0024	U U U U	0.36	U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U	0.099 0.12 0.15	U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.005 0.094 0.036 0.04
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.3 1.7 2.1 1.4 0.94	1 1 1 0 0	6-12 1/13/201- Composit NR NR NR NR NR	U	NR NR NR NR NR NR		0.0057 0.0088 0.023 0.011 0.0053	1 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U	0.0068 0.014 0.0024	U U U	0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U	0.099 0.12 0.15	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.005 0.094 0.036 0.004 0.005 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94		6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	U	NR NR NR NR NR NR NR NR		0.0057 0.0088 0.023	1 0 1 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U U	0.0068 0.014 0.0024	0 0 0 0 0 0 1	0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U U	0.099 0.12 0.15	U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0094 0.036 0.094 2.4 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan sulfate Endrin	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94	1 1 1 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	U	NR NR NR NR NR NR NR NR NR NR NR		0.0057 0.0088 0.023 0.011 0.0053	1 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U	0.0068 0.014 0.0024	U U U	0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U	0.099 0.12 0.15	U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.005 0.094 0.036 0.004 0.005 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin Endrin	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94	1 1 1 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	U	NR NR NR NR NR NR NR NR		0.0057 0.0088 0.023 0.011 0.0053	J U U U U U	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U U U U U U U U U U U U U	0.0068 0.014 0.0024	0 0 0 0 0 0 0 0	0.36	U U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U U U U U U U	0.099 0.12 0.15	U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0034 0.005 0.094 0.036 0.004 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4-DDE 4,4-DDE 4,4-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan sulfate Endrin Endrin aldehyde Endrin aldehyde Endrin ialdehyde Endrin ialdehyde	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94	1 1 1 0 0 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR	U	0.0057 0.0088 0.023 0.011 0.0053	1 0 0 0 1 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U U U U U	0.0068 0.014 0.0024	0 0 0 0 0 0 0 0	0.36	U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U U U U	0.099 0.12 0.15	U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.0094 0.036 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin Endrin	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94	0 0 0 0 1 1 1 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR N	U	0.0057 0.0088 0.023 0.011 0.0053	1 0 0 0 0 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U U U U U U U U U U U U U	0.0068 0.014 0.0024	0 0 0 0 0 0 1 1 0	0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composit 0.23 0.24 0.33	U U U U U U U U U U U U U U U U U U U	0.099 0.12 0.15	U U U U U U U U U U	Unestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.0094 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC detta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan i	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94 0.38	0 0 0 0 0 0 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR N	U	0.0057 0.0068 0.023 0.011 0.0053	0 0 0 0 0 0 0 0	6-12 1/13/201 Composi 0.0064 0.014	U U U U U U U U U U U U U U U U U U U	0.0068 0.014 0.0024 0.0096		0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201/ Compositi 0.23 0.24 0.33		0.099 0.12 0.15	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0034 0.005 0.004 0.005 2.4 2.4 0.014 0
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane)	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94 0.38	0 0 0 0 0 0 0 0	6-12 1/13/201 Composit NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR N	U	0.0057 0.0088 0.023 0.011 0.0053	1 0 0 0 0 0 0 0	6-12 1/13/2010 Composi 0.0064 0.014	U	0.0068 0.014 0.0024 0.0096		0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Compositi 0.23 0.24 0.33 0.56		0.099 0.12 0.15	U U U U U U U U U U U	Unestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.005 0.004 0.005 0.004 0.005 0.004 0.005 0.005 0.004 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.001 0.005 0.001
USEPA Method 8081 4,4-DDD 4,4-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan iI Endos	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94 0.38	1 0 0 0 0 0 0 0	6-12 1/13/201 Composition NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR N	U	0.0057 0.0068 0.023 0.011 0.0053	J U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Composi 0.0064 0.014	U	0.0068 0.014 0.0024 0.0096	1 0 0 0 0 0 0 0 0 0 0	0.36	U U U U U U U U U U U U U U U U U U U	6-12 1/13/2010 Compositi 0.23 0.24 0.33 0.56	U U U U U U U U U U U U U U U U U U U	0.099 0.12 0.15	U U U U U U U U U U U U U U U U U U U	Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0034 0.005 0.005 0.004 0.005 0.004 0.005 0.004 0.005 0.004 0.005 0.005 0.004 0.005 0.005 0.004 0.005 0.0
USEPA Method 8081 4,4*-DDD 4,4*-DDE 4,4*-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan iI Endos	Sample Depth (in) Sample Date Sample Type mg/kg	1.3 1.7 2.1 1.4 0.94 0.38		6-12 1/13/201 Composition NR NR NR NR NR NR NR NR NR NR NR NR NR	UUU	NR NR NR NR NR NR NR NR NR NR NR NR NR N	U	0.0057 0.0068 0.023 0.011 0.0053	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6-12 1/13/2010 Composi 0.0064 0.014	te U	0.0068 0.014 0.0024 0.0096		0.36		6-12 1/13/2010 Compositi 0.23 0.24 0.33 0.56	U	0.099 0.12 0.15		Unestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.004 0.005 0.004 0.005 0.004 0.005 0.005 0.004 0.005 0.005 0.004 0.005

		,			TAB	LE 3-11 PES	TICII	DE DETECTI	ONS	IN SURFAC	E SO	IL								
	Sample Location			SS-13						SS-14						SS-15				D
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375
Parameter List	Sample Date	0-0		1/13/201	n	12-24		0-0		1/13/201	0	12-24		0-0		1/13/2010)	12-24		Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Type			Composi						Composi						Composit				Objectives (ppm)
4.4'-DDD	mg/kg	1.7	J	NR	ic	NR	_		U	Composi	U	I	U		U	Composit	U	NR		0.0033
4,4'-DDE	mg/kg	2	J	NR	+	NR	+		U		U		U		U		U	NR	-	0.0033
4.4'-DDT	mg/kg	2.7	,	NR		NR		0.0051	J		U	0.0073		0.0057	1	0.0071		NR	_	0.0033
Aldrin	mg/kg	2.7	U	INK	U	INK	U	0.0031	U		U	0.0073	U	0.0037	U	0.0071	U	NK	U	0.005
alpha-Chlordane	mg/kg		U		11		U		U		U		U		U		U		U	0.003
beta-BHC	mg/kg		U	NR	-	NR	-		U		U		U		U		U	NR	-	0.036
delta-BHC	mg/kg	6.1	U	NR NR	+	NR NR	+		U		U		U		U		U	NR	-	0.030
Dieldrin	mg/kg	0.1	U	NR	+	NR			U		U		U		U		U	NR		0.005
Endosulfan I	mg/kg		U	NR NR	+	NR NR	+		U		U		U		U		U	NR	-	2.4
Endosulfan II	mg/kg		U	NR NR	+	NR NR			U		U		U	0.0087	J		U	NR		2.4
Endosulfan sulfate	mg/kg		U	NR NR	+	NR NR	+		U		U		U	0.0061	J		U	NR	-	2.4
Endosuiran suirate Endrin	mg/kg mg/kg		U	NR NR	+	NR NR	-		U		U		U	0.0001	U		U	NR NR	+	0.014
Endrin Endrin aldehyde	mg/kg		U	NR NR	+	NR NR			U		U		U	0.0045	J		U	NR		0.014
Endrin aldenyde Endrin ketone	mg/kg		U	INK	U	INK	U		U		U		U	0.0043	U		U	NK	U	
gamma-BHC (Lindane)	mg/kg		U	NR	U	NR	U		U		U		U		U		U	NR	U	
gamma-Chlordane	mg/kg	3	J	NR NR	+	NR NR			U		U		U		U		U	NR		
Heptachlor	mg/kg	0.85	J	NR NR	+	NR NR	+		U		U		U		U		U	NR	-	0.042
Heptachlor epoxide	mg/kg	0.05	U	NR NR	+	NR NR			U		U		U	0.003	J		U	NR NR		0.042
Methoxychlor			U	INK	U	INK	U		U		U		U	0.003	U		U	NK	U	
Methoxyellior	mg/kg																			
				<u> </u>								l .								
				I											U					
	Sample Location			\$\$-16						SS-17					101	SS-18				
	Sample Location Sample Depth (in)	0-6		SS-16 6-12		12-24		0-6		SS-17 6-12		12-24		0-6		SS-18 6-12		12-24		Part 375
Parameter I ist	Sample Depth (in)	0-6		6-12	0	12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted Use
Parameter List	Sample Depth (in) Sample Date	0-6		6-12 1/13/201		12-24		0-6		6-12 1/13/201	0	12-24		0-6		6-12 1/13/2010)	12-24		Part 375 Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Depth (in) Sample Date Sample Type			6-12 1/13/201 Composi						6-12 1/13/201 Composi	0	12-24				6-12 1/13/2010 Composit) e			Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8081 4,4'-DDD	Sample Depth (in) Sample Date Sample Type mg/kg	1.7	J	6-12 1/13/201 Composi 1.6		NR		0.96		6-12 1/13/201 Composi 1.1	0		U	1.4	DJ	6-12 1/13/2010 Composit 0.53)	0.45		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	1.7 2.5	J	6-12 1/13/201 Composi 1.6 4		NR NR		0.96 1.5		6-12 1/13/201 Composi 1.1 1.6	0	0.013		1.4 1.6	DJ	6-12 1/13/2010 Composit 0.53 0.6) e	0.45 0.7		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	1.7		6-12 1/13/201 Composi 1.6	J J	NR		0.96	J	6-12 1/13/201 Composi 1.1	0 te		U J	1.4	DJ	6-12 1/13/2010 Composit 0.53) e	0.45	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	1.7 2.5	U	6-12 1/13/201 Composi 1.6 4	J U	NR NR	U	0.96 1.5	J	6-12 1/13/201 Composi 1.1 1.6	0 te J	0.013	U J	1.4 1.6	DJ DJ DJ U	6-12 1/13/2010 Composit 0.53 0.6) e J	0.45 0.7	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5	U	6-12 1/13/201 Composi 1.6 4	U U	NR NR NR		0.96 1.5	J U	6-12 1/13/201 Composi 1.1 1.6	O tte	0.013 0.02	n n	1.4 1.6 1.6	DJ DJ DJ U	6-12 1/13/2010 Composit 0.53 0.6) e U U	0.45 0.7	J U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.005
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5	U U	6-12 1/13/201 Composi 1.6 4	U U U	NR NR NR	U	0.96 1.5 1.4	J	6-12 1/13/201 Composi 1.1 1.6 1.5	0 te J	0.013	n n	1.4 1.6	n Di Di	6-12 1/13/2010 Composite 0.53 0.6 0.67) e J	0.45 0.7 0.67	J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5 2	U U U J	6-12 1/13/201 Composi 1.6 4 2.5	U U	NR NR NR NR	U	0.96 1.5 1.4	J U U	6-12 1/13/201 Composi 1.1 1.6 1.5	O tte	0.013 0.02 0.0052	1 0 1 0	1.4 1.6 1.6	DJ DJ U U U	6-12 1/13/2010 Composit 0.53 0.6 0.67) e U U	0.45 0.7 0.67	J U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5 2	U U U	6-12 1/13/201 Composi 1.6 4 2.5	U U U U J	NR NR NR NR	U	0.96 1.5 1.4	1 U U	6-12 1/13/201 Composi 1.1 1.6 1.5	O te U U U U J	0.013 0.02	1 1 0 1 0	1.4 1.6 1.6 0.061	DJ DJ U U U	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 0 0 1	0.45 0.7 0.67	J U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.003 0.005 0.094 0.036 0.04
USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC Dieldrin Endosulfan I	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5 2	U U U	6-12 1/13/201 Composi 1.6 4 2.5	U U U	NR NR NR NR NR	U	0.96 1.5 1.4	J U U	6-12 1/13/201 Composi 1.1 1.6 1.5	0 te U U U U J J J	0.013 0.02 0.0052	1 0 1 0 1 0	1.4 1.6 1.6 0.061 0.64 0.36	DJ DJ U U U	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 U U U U U U U U U U U U U U U U U U U	0.45 0.7 0.67	J U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.0094 0.036 0.004 0.005
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II	Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1.7 2.5 2	U U U U U U	6-12 1/13/201 Composi 1.6 4 2.5	U U U J J U U	NR NR NR NR NR NR	U	0.96 1.5 1.4	J U U U	6-12 1/13/201 Composi 1.1 1.6 1.5	O te U U U U J J U U	0.013 0.02 0.0052 0.0056	1 1 0 1 0	1.4 1.6 1.6 0.061 0.64 0.36 0.083	DJ DJ U U U	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 J U U U U U U U U U U U U U U U U U U	0.45 0.7 0.67	J U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.004 2.4
USEPA Method 8081 4,4"-DDD 4,4"-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan sulfate	Sample Depth (in) Sample Date Sample Type mg/kg	1.7 2.5 2		6-12 1/13/201 Composi 1.6 4 2.5	U U U U J J	NR NR NR NR NR NR NR NR NR NR	U	0.96 1.5 1.4	J U U U U U	6-12 1/13/201 Composi 1.1 1.6 1.5	00 U U U U U U U U U U U U U U U U U U	0.013 0.02 0.0052	1 0 0 0 1 0	1.4 1.6 1.6 0.061 0.64 0.36	DJ U	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 1 1 0 0	0.45 0.7 0.67	1 U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005 2.4 2.4 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan sulfate Endrin	Sample Depth (in) Sample Date Sample Type mg/kg	1.7 2.5 2		6-12 1/13/201 Composi 1.6 4 2.5	U U U J J U U U	NR NR NR NR NR NR NR NR NR NR NR	U	0.96 1.5 1.4		6-12 1/13/201 Composi 1.1 1.6 1.5	0 tte U U U U U U U U U U U U U U U U U U	0.013 0.02 0.0052 0.0056	1 0 1 0 1 0	1.4 1.6 1.6 0.061 0.64 0.36 0.083 0.082 0.17	DJ DJ U U U J U	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 1 1 0 0	0.45 0.7 0.67	1 U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.005 0.004 0.036 0.04 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan sulfate Endrin Endrin	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.7 2.5 2	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.6 4 2.5	U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR NR	U	0.96 1.5 1.4	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.1 1.6 1.5	0 tte U U U U U U U U U U U U U U U U U U	0.013 0.02 0.0052 0.0056	U U U U U U U U U U U U U U U U U U U	1.4 1.6 1.6 0.061 0.64 0.36 0.083 0.082	DJ DJ U U U J U	6-12 1/13/2010 Composit 0.53 0.6 0.67	U	0.45 0.7 0.67		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chordane beta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan Sulfate Endrin	Sample Depth (in) Sample Date Sample Type mg/kg	1.7 2.5 2	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.6 4 2.5	U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR NR NR NR NR N	UUU	0.96 1.5 1.4		6-12 1/13/201 Composi 1.1 1.6 1.5	0 tte U U U U U U U U U U U U U U U U U U	0.013 0.02 0.0052 0.0056	1 0 0 0 1 0	1.4 1.6 1.6 0.061 0.64 0.36 0.083 0.082 0.17	DJ J J J J J J J J J	6-12 1/13/2010 Composit 0.53 0.6 0.67		0.45 0.7 0.67		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan iI	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.7 2.5 2		6-12 1/13/201 Composi 1.6 4 2.5	U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR	UUU	0.96 1.5 1.4 3.3 0.59		6-12 1/13/201 Composi 1.1 1.6 1.5	0 te	0.013 0.02 0.0052 0.0056 0.0082 0.0074	0 U U U U U U U U U U U U U U U U U U U	1.4 1.6 1.6 0.061 0.64 0.36 0.082 0.17 0.41	U	6-12 1/13/2016 Composit 0.53 0.6 0.67	0 U U U U U U U U U U U U U U U U U U U	0.45 0.7 0.67 1.8 0.29		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.0094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4"-DDD 4,4"-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan i	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.7 2.5 2		6-12 1/13/201 Composi 1.6 4 2.5	0 U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR NR NR NR NR N	UUU	0.96 1.5 1.4 3.3 0.59	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.1 1.6 1.5	0 tte	0.013 0.02 0.0052 0.0056		1.4 1.6 1.6 0.061 0.64 0.36 0.083 0.082 0.17	D) D) D) D) D) D) D) D)	6-12 1/13/2010 Composit 0.53 0.6 0.67	1 U U U U U U U U U U U U U U U U U U U	0.45 0.7 0.67		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan II Endosulfan Endrin Endrin aldehyde Endrin Behre gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-Chlordane	Sample Depth (in) Sample Date Sample Type mg/kg	1.7 2.5 2 2 0.93	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6-12 1/13/201 Composi 1.6 4 2.5	0 U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR NR NR	UUU	0.96 1.5 1.4 3.3 0.59	U U U U U U U U P P	6-12 1/13/201 Composi 1.1 1.6 1.5 2.7 0.68 0.37	0 tee	0.013 0.02 0.0052 0.0056 0.0082 0.0074		1.4 1.6 1.6 0.061 0.64 0.36 0.082 0.17 0.41	DJ DJ U U U DJ DJ U U U DJ DJ U U U DJ DJ DJ U U U DJ DJ DJ DJ DJ DJ DJ DJ DJ DJ DJ DJ DJ	6-12 1/13/2010 Composit 0.53 0.6 0.67 1.8 0.31 0.16	1 J J J J J J J J J J J J J J J J J J J	0.45 0.7 0.67 1.8 0.29	1 J J J J J J J J J J J J J J J J J J J	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4"-DDD 4,4"-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan i	Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	1.7 2.5 2 2 0.93		6-12 1/13/201 Composi 1.6 4 2.5	0 U U U U U U U U U U U U U U U U U U U	NR NR NR NR NR NR NR NR NR NR NR NR NR N	UUU	0.96 1.5 1.4 3.3 0.59		6-12 1/13/201 Composi 1.1 1.6 1.5 2.7 0.68 0.37	0 te	0.013 0.02 0.0052 0.0056 0.0082 0.0074		1.4 1.6 1.6 0.061 0.64 0.36 0.082 0.17 0.41	D) D) D) D) D) D) D) D)	6-12 1/13/2010 Composit 0.53 0.6 0.67 1.8 0.31 0.16	1 U U U U U U U U U U U U U U U U U U U	0.45 0.7 0.67 1.8 0.29		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.004 0.094 0.036 0.04 0.005 2.4 2.4 0.014

					TAB	LE 3-11 PES'	HCIL	DE DETECTI	IONS	IN SURFAC	E SO	IL								
	Sample Location			SS-19						SS-20						SS-21				Part 375
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Unrestricted Use
Parameter List	Sample Date			1/13/201	10					1/13/201						1/13/2010)			Soil Cleanup
USEPA Method 8081	Sample Type			Composi	ite					Composi	ite					Composite	e			Objectives (ppm)
4,4'-DDD	mg/kg		U	0.034	J		U	0.22	J	1	J		U		U	0.047	J	NR		0.0033
4,4'-DDE	mg/kg	0.92		0.04			U	0.45		1.5		0.58		0.013	P	0.051		NR		0.0033
4,4'-DDT	mg/kg	1.1		0.051			U	0.42		1.3		0.72		0.021		0.06		NR		0.0033
Aldrin	mg/kg		U		U		U		U		U		U		U		U		U	0.005
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.094
beta-BHC	mg/kg		U		U		U		U		U		U	0.0032	J		U	NR		0.036
delta-BHC	mg/kg		U		U		U	1.6		4			U		U		U	NR		0.04
Dieldrin	mg/kg		U	0.019	J		U		U	0.58	J		U	0.0089	J	0.027	J	NR		0.005
Endosulfan I	mg/kg		U	0.0078	J		U		U		U		U	0.0023	J	0.012	J	NR		2.4
Endosulfan II	mg/kg		U		U		U		U		U		U		U		U	NR		2.4
Endosulfan sulfate	mg/kg		U		U		U		U		U		U	0.0074			U	NR		2.4
Endrin	mg/kg		U		U		U		U		U		U		U		U	NR		0.014
Endrin aldehyde	mg/kg		U	0.01			U		U		U		U	0.007		0.018	J	NR		
Endrin ketone	mg/kg		U		U		U		U		U		U		U		U		U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U		U		U	0.0033		0.0097	J	NR		
gamma-Chlordane	mg/kg	0.94	P	0.029	J	0.0025	J	0.35	J	1.4	J	0.79	J	0.011	J	0.042	J	NR		
Heptachlor	mg/kg		U	0.025			U	0.25	J	1			U		U		U	NR		0.042
Heptachlor epoxide	mg/kg		U		U		U		U		U		U		U		U	NR		
Methoxychlor	mg/kg		U		U		U				U		U		U		U		U	
	1116/116		U		Ü		U		U		U		U		0		-		Ü	***
	6/ 15						U		U		U		10				1 - 1			
									U						101					
	Sample Location			SS-22					U	SS-23						SS-24				Part 375
	Sample Location Sample Depth (in)	0-6		6-12		12-24		0-6	U	6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted Use
Parameter List	Sample Location Sample Depth (in) Sample Date	0-6		6-12 1/13/201	10	12-24		0-6	U	6-12 1/13/201	10	12-24		0-6		6-12 1/13/2010		12-24		Part 375 Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Location Sample Depth (in) Sample Date Sample Type			6-12	10					6-12 1/13/201 Composi	10			0-6		6-12)	12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8081 4,4'-DDD	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34		6-12 1/13/201 Composi	10	3.6	J	1.3	J	6-12 1/13/201 Composi 1.2	10	2.2	J	0-6	U	6-12 1/13/2010	U	12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	0.34 0.4		6-12 1/13/201 Composi	10	3.6 4.9		1.3 1.7		6-12 1/13/201 Composi 1.2 1.5	10	2.2 2.4				6-12 1/13/2010 Composite)	12-24	U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	0.34		6-12 1/13/201 Composi	10 ite U	3.6	J	1.3	J	6-12 1/13/201 Composi 1.2	10 ite	2.2	J	0-6	UUU	6-12 1/13/2010) 2 U U	12-24	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg	0.34 0.4	U	6-12 1/13/201 Composi	IO ite U	3.6 4.9	J	1.3 1.7	J	6-12 1/13/201 Composi 1.2 1.5	IO lite	2.2 2.4	J		U U	6-12 1/13/2010 Composite	U U	12-24	U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4"-DDD 4,4"-DDE 4,4"-DDT Aldrin alpha-Chlordane	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	0.34 0.4	U	6-12 1/13/201 Composi	U U U	3.6 4.9	U U	1.3 1.7	J U	6-12 1/13/201 Composi 1.2 1.5	J U U	2.2 2.4	n 1		U U U	6-12 1/13/2010 Composite	U U U	12-24	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.005
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.34 0.4	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/13/201 Composi	U U U	3.6 4.9	n n 1	1.3 1.7	U U	6-12 1/13/201 Composi 1.2 1.5	U U U	2.2 2.4	0 0 1 1		U U U U U	6-12 1/13/2010 Composite		12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.34 0.4	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 1/13/201 Composi 1.1 1.3	IO lite U U U U U U U	3.6 4.9 4	U U U	1.3 1.7 1.8	J U U	6-12 1/13/201 Composi 1.2 1.5 1.6	U U U U	2.2 2.4 3	0 0 0 1		U U U U	6-12 1/13/2010 Composite		12-24	U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.34 0.4 0.46	U U U U	6-12 1/13/201 Composi	U U U U U J	3.6 4.9 4	1 0 0 1	1.3 1.7	1 0 0 0 1	6-12 1/13/201 Composi 1.2 1.5	U U U U J	2.2 2.4 3	1 0 0 1 1		U U U U U	6-12 1/13/2010 Composite		12-24	U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.003 0.005 0.094 0.036 0.04
USEPA Method 8081 4,4'-DDD 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.34 0.4		6-12 1/13/201 Composi 1.1 1.3	U U U U U U U U U U U	3.6 4.9 4	1 0 0 0 1	1.3 1.7 1.8	1 0 0 1	6-12 1/13/201 Composi 1.2 1.5 1.6	te U U U U U U U U U U U U U U U U U U U	2.2 2.4 3	1 0 0 0 1 1		U U U U U U U U U	6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.0094 0.005 0.004 0.005
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan I Endosulfan II	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46	U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.1 1.3	U U U U U U U U U U U U U U U U U U U	3.6 4.9 4	1 1 0 0 0 1	1.3 1.7 1.8	1 0 0 0 0	6-12 1/13/201 Composi 1.2 1.5 1.6	U U U U U U U U U U U U U U U U U U U	2.2 2.4 3	1 1 1 0 0 1		U U U U U U U U U U U U U	6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.005 2.4 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46		6-12 1/13/201 Composi 1.1 1.3	U	3.6 4.9 4	1 1 1 0 0 0 1	1.3 1.7 1.8	1 0 0 0 0	6-12 1/13/201 Composi 1.2 1.5 1.6	U U U U U U U U U U U U U U U U U U U	2.2 2.4 3	1 1 0 0 0 1 1		U U U U U U U U U U U U U U	6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.004 0.036 2.4 2.4 2.4
USEPA Method 8081 4,4-DDD 4,4-DDE 4,4-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan sulfate Endrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46		6-12 1/13/201 Composi 1.1 1.3	U	3.6 4.9 4	0 U U U U U U U U U U U U U U U U U U U	1.3 1.7 1.8	0 U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.2 1.5 1.6	U U U U U U U U U U U U U U U U U U U	2.2 2.4 3	1 1 1 1 0 0 0 1 1 1			6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.036 0.04 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46		6-12 1/13/201 Composi 1.1 1.3	U	3.6 4.9 4	0 U U U U U U U U U U U U U U U U U U U	1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	O	2.2 2.4 3	U			6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0036 0.005 0.094 0.036 0.04 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan sulfate Endrin Endrin	Sample Location Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0.34 0.4 0.46		6-12 1/13/201 Composi 1.1 1.3	U	3.6 4.9 4	0 U U U U U U U U U U U U U U U U U U U	1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.2 2.4 3				6-12 1/13/2010 Composite		12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0034 0.005 0.004 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan iI Endosulfan sulfate Endrin iI Endrin aldehyde Endrin ketone gamma-BHC (Lindane)	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46 0.092		6-12 1/13/201 Composi 1.1 1.3	U U U U U U U U U U U U U U U U U U U	3.6 4.9 4	0 U U U U U U U U U U U U U U U U U U U	1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.2 2.4 3 1.8 0.91		0.92		6-12 1/13/2010 Composite				Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.0094 0.036 0.004 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-BHC (Lindane)	Sample Location Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0.34 0.4 0.46	0 U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.1 1.3	U U U U U U U U U U U U U U U U U U U	3.6 4.9 4		1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.2 2.4 3 1.8 0.91	1 J J J J J J J J J J J J J J J J J J J			6-12 1/13/201(Composite 1.4		0.34		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.005 0.094 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4-DDD 4,4-DDE 4,4-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan II Endosulfan Endrin aldehyde Endrin lettone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-Chlordane	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.34 0.4 0.46 0.092		6-12 1/13/201 Composi 1.1 1.3	U	3.6 4.9 4	1 U U U U U U U U U U U U U U U U U U U	1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	J	2.2 2.4 3 1.8 0.91		0.92		6-12 1/13/2010 Composite				Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.005 0.094 0.036 0.004 0.005 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endin aldehyde Endrin ketone gamma-BHC (Lindane) gamma-BHC (Lindane) gamma-BHC (Lindane)	Sample Location Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0.34 0.4 0.46 0.092	0 U U U U U U U U U U U U U U U U U U U	6-12 1/13/201 Composi 1.1 1.3	U U U U U U U U U U U U U U U U U U U	3.6 4.9 4		1.3 1.7 1.8		6-12 1/13/201 Composi 1.2 1.5 1.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.2 2.4 3 1.8 0.91	1 J J J J J J J J J J J J J J J J J J J	0.92		6-12 1/13/201(Composite 1.4		0.34		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005 2.4 2.4 0.014

					TAB	LE 3-11 PEST	ΓICIE	DE DETECTION	ONS	IN SURFAC	E SO	IL .								
	Sample Location			SS-25						SS-26						SS-27				
	Sample Depth (in)	0-6		6-12	_	12-24		0-6		6-12		12-24		0-6		6-12		12-24		Part 375
D	Sample Depth (III)	0-0		4/26/201	1	12-24		0-0		4/26/201	0	12-24		0-0		4/26/2010	١	12-24		Unrestricted Use
Parameter List USEPA Method 8081	Sample Type			Composit						Composit						Composite				Soil Cleanup
4,4'-DDD		0.44	P	Composi	U		U		U	Composit	U		U	0.026	т т	Composite	U	0.0042	P	Objectives (ppm) 0.0033
4.4'-DDE	mg/kg mg/kg	0.41	r	0.33	U	0.24	U		U		U		U	0.020	U		U	0.0042	U	0.0033
4,4'-DDT	mg/kg	0.41		0.33	+	0.24			U	0.14	U		U	0.037	U	0.024	U	0.0067	P	0.0033
Aldrin	mg/kg	0.07	U	0.41	U	0.20	U		U	0.14	U		U	0.037	U	0.024	U	0.0007	U	0.005
alpha-Chlordane	mg/kg		U		U		U		U		U		U		U		U		U	0.003
beta-BHC	mg/kg		U		U		U		U		U		U		U	0.0075	U	0.0022	U	0.036
delta-BHC	mg/kg	1.8	D	0.83	U	0.62	U	0.22	U	0.3	U	1.3	U	0.017	U	0.0073	U	0.0022	U	0.04
Dieldrin	mg/kg	0.22	ъ	0.03	U	0.02	U	0.22	U	0.3	U	1.0	U	0.017	U		U		U	0.005
Endosulfan I	mg/kg	0.091	P		U		U		U		U		U		U		U		U	2.4
Endosulfan II	mg/kg	0.091	U		U		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg		U		U		U		U		U		U		U	0.0088	P		U	2.4
Endrin Endrin		0.073	P		U		U		U		U		U		U	0.0088	U		U	0.014
Endrin Endrin aldehyde	mg/kg mg/kg	0.079	P		U		U		U		U		U		U	0.0061	U		U	0.014
Endrin aidenyde Endrin ketone		0.079	U		U		U		U		U		U		U	0.0051	P		U	
gamma-BHC (Lindane)	mg/kg	0.031	P		U		U		U		U		U		U	0.0038	U		U	
gamma-BHC (Lindane) gamma-Chlordane	mg/kg	0.051	P		U		U		U		U		U		U	0.0094	U	0.0026	P	
0	mg/kg	0.054	P	0.22	U	0.22	U		U		U		U		U	0.0094	U	0.0026	P	0.042
Heptachlor	mg/kg			0.23	-			0.48	U	0.52	U	2.0	U	0.061	U	0.020	U		P	
Heptachlor epoxide Methoxychlor	mg/kg mg/kg	0.15	E PJ	1.4	U	1	U	0.48	U	0.52	U	2.8	U	0.061	U	0.029	U	0.0075	U	
*	6.46	0.15	13		U		U		U		U		0		U		-		-	
		0.15	17		U		U		U		U		10		U		O		0	
		0.13	13	\$5-28	10		0		U	\$5.20	U					\$5.30	0		10	
	Sample Location		113	SS-28	0	12-24	0	0-6	U	SS-29		12-24		0-6		SS-30 6-12		12-24		Part 375
Parameter List	Sample Location Sample Depth (in)	0-6	17	6-12		12-24	0	0-6	U	6-12		12-24		0-6		6-12		12-24		Part 375 Unrestricted Use
Parameter List USEPA Method 8081	Sample Location Sample Depth (in) Sample Date			6-12 4/26/201)	12-24		0-6	U	6-12 4/26/201	0	12-24		0-6		6-12 4/26/2010		12-24		Part 375 Unrestricted Use Soil Cleanup
USEPA Method 8081	Sample Location Sample Depth (in) Sample Date Sample Type			6-12) e	12-24		0-6		6-12	0 te	12-24		0-6		6-12 4/26/2010 Composite)	12-24		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm)
USEPA Method 8081 4,4'-DDD	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6	U	6-12 4/26/201 Composit)	12-24	U	0-6	U	6-12 4/26/201 Composit	0	12-24	U	0-6	U	6-12 4/26/2010 Composite 0.053		12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg	0-6		6-12 4/26/201 Composit	0 e	12-24	U			6-12 4/26/2010 Composit	0 te	12-24	U	0-6	UUU	6-12 4/26/2010 Composite 0.053 0.072)	12-24	U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg	0-6	U P	6-12 4/26/201 Composit	O ee U	12-24	U U	0-6	UUU	6-12 4/26/201 Composit	0 te U	12-24	UUUUUU	0-6	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 4/26/2010 Composite 0.053) P	12-24	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U P	6-12 4/26/201 Composit	U P U	12-24	U U U		UUU	6-12 4/26/2010 Composit	0 te U	12-24	U U U	0-6	U U U	6-12 4/26/2010 Composite 0.053 0.072	P U	12-24	U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033
USEPA Method 8081 4,4"-DDD 4,4"-DDE 4,4"-DDT Aldrin alpha-Chlordane	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U P U U	6-12 4/26/201 Composit	U P U U	12-24	U U U U		UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	6-12 4/26/2010 Composit	O te U U U U	12-24	U U U U U U	0-6	U U U U	6-12 4/26/2010 Composite 0.053 0.072	PUUU	12-24	U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.003 0.005 0.094
USEPA Method 8081 4,4*-DDD 4,4*-DDE 4,4*-DDT Aldrin alpha-Chlordane beta-BHC	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6 0.66 0.96	U P	6-12 4/26/201 Composit 0.16 0.22	U P U	12-24	U U U U	1.8	UUU	6-12 4/26/2010 Composit 0.3 0.37	0 te U		U U U		U U U	6-12 4/26/2010 Composite 0.053 0.072 0.11	P U		U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.005 0.094 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6	U P U U U	6-12 4/26/201 Composit	P U U U	12-24	U U U U U		U U U U	6-12 4/26/2010 Composit	O te U U U U	12-24	U U U U U U U	0-6	U U U U	6-12 4/26/2010 Composite 0.053 0.072	P U U U U	0.0012	U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.005 0.094 0.036 0.036
USEPA Method 8081 4,4°-DDD 4,4°-DDT Adrin alpha-Chlordane beta-BHC delta-BHC Dieldrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6 0.66 0.96	U P U U U U	6-12 4/26/201 Composit 0.16 0.22	U	12-24	U U U U U U	1.8	U U U U	6-12 4/26/2010 Composit 0.3 0.37	O te U U U U U U		U U U U U U U U U U U U U U U U U U U		U U U U U U U U	6-12 4/26/2010 Composite 0.053 0.072 0.11	PUUUUUUUU		U U U U U U PJ	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.003 0.094 0.036 0.04
USEPA Method 8081 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6 0.66 0.96	U P U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	e U U U U U U U	12-24		1.8	U U U U U	6-12 4/26/2010 Composit 0.3 0.37	O te U U U U U U U		U U U U U U U U U U U U U U U U U U U		U U U U U	6-12 4/26/2010 Composite 0.053 0.072 0.11	PUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU		U U U U U U PJ U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.094 0.004 0.005
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6 0.66 0.96	U P U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	U	12-24		1.8	U U U U U U U U U	6-12 4/26/2010 Composit 0.3 0.37	O te U U U U U U U U U		U U U U U U U U U U U		U U U U U U	6-12 4/26/2010 Composite 0.053 0.072 0.11	P U U U U U U U U U U U U		U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.005 0.094 0.036 0.005 2.42
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0-6 0.66 0.96	U P U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	P P U U U U U U U U U U	12-24		1.8	U U U U U U U U U U U U U U	6-12 4/26/2010 Composit 0.3 0.37	0 te U U U U U U U U U U U U				U U U U U U U U U U U U U U U U	6-12 4/26/2010 Composite 0.053 0.072 0.11	P		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.005 0.094 0.036 0.04 0.005 2.4 2.4
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P V U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	P U U U U U U U U U U U U	12-24		1.8	U U U U U U U U U U U U U U U	6-12 4/26/2010 Composit 0.3 0.37	0 te U U U U U U U U U U					6-12 4/26/2010 Composite 0.053 0.072 0.11	P		U	Part 375 Umestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.094 0.094 0.036 0.04 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II Endosulfan II	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	0 ee U U U U U U U U U U U U U U	12-24		1.8	U U U U U U U U	6-12 4/26/2010 Composit 0.3 0.37	0 te U U U U U U U U U U U U					6-12 4/26/2010 Composite 0.053 0.072 0.11	P U U U U U U U U U U U U U U U U U U U		U U U U U U U U U U U U U U U U U U U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0035 0.094 0.036 0.04 2.4 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC Dieldrin Endosulfan II Endosulfan II Endosulfan II Endosulfan iI Endosulfan sulfate Endrin	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	D ee U U U U U U U U U U U U U U U U U U	12-24		1.8	U U U U U U U U U U U U U U U U U U U	6-12 4/26/2010 Composit 0.3 0.37	0 tee U U U U U U U U U U U U U U U U U U					6-12 4/26/2010 Composite 0.053 0.072 0.11	P U U U U U U U U U U U U U U U U U U U			Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0036 0.005 0.094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Addrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone gamma-BHC (Lindane)	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	P P U U U U U U U U U U U U U U U U U U	12-24		1.8		6-12 4/26/2010 Composit 0.3 0.37	0 tee U U U U U U U U U U U U U U U U U U					6-12 4/26/2010 Composite 0.053 0.072 0.11	P		U	Part 375 Unrestricted Use Soit Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.005 0.094 0.036 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan i	Sample Location Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	D ee U U U U U U U U U U U U U U U U U U	12-24		6		6-12 4/26/2011 Composit 0.3 0.37	0 tee U U U U U U U U U U U U U U U U U U					6-12 426/2011 Composit 0.053 0.072 0.11	P U U U U U U U U U U U U U U U U U U U		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.004 0.005 0.04 0.005 2.4 2.4 0.014
USEPA Method 8081 4,4°-DDD 4,4°-DDE 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC delta-BHC Dieldrin Endosulfan II Endosulf	Sample Location Sample Depth (in) Sample Date Sample Type mg/kg	0.66 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/2011 Composit 0.16 0.22 0.43	P P U U U U U U U U U U U U U U U U U U			6		6-12 4/26/2011 Composit 0.3 0.37	0 tee U U U U U U U U U U U U U U U U U U	0.049		2		6-12 4/26/2010 Composition 0.053 0.072 0.11	P	0.0012		Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0035 0.004 0.004 0.005 2.4 2.4 2.4 0.014 0.042
USEPA Method 8081 4,4°-DDD 4,4°-DDT Aldrin alpha-Chlordane beta-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endosulfan III Endosulfan i	Sample Location Sample Depth (in) Sample Date Sample Date Sample Type mg/kg	0-6 0.66 0.96	U P P U U U U U U U U U U U U U U U U U	6-12 4/26/201 Composit 0.16 0.22	P P U U U U U U U U U U U U U U U U U U	12-24		6		6-12 4/26/2011 Composit 0.3 0.37	0 tee U U U U U U U U U U U U U U U U U U					6-12 426/2011 Composit 0.053 0.072 0.11	P		U	Part 375 Unrestricted Use Soil Cleanup Objectives (ppm) 0.0033 0.0033 0.0033 0.0033 0.004 0.005 0.04 0.005 2.4 2.4 0.014

TABLE 3-11 PESTICIDE DETECTIONS IN SURFACE SOIL

					11111	JE J-11 1 EJ	HCH	DE DETECTI	Orto .	in bold he	LOO	IL.				
								SS-DUP		SS-DUP0:	2	SS-DUP0:	3	SS-DUP-01		
	Sample Location			SS-31				SS-06		SS-12		SS-17		SS-26		Part 375
	Sample Depth (in)	0-6		6-12		12-24		6-12		12-24		0-6		12-14		Unrestricted Use
Parameter List	Sample Date			4/26/201	0			1/12/2010)	1/13/2010	0	1/13/2010)	4/26/2010		Soil Cleanup
USEPA Method 8081	Sample Type			Composi	te			Composit	e	Composit	e	Composit	2	Composite		Objectives (ppm)
4,4'-DDD	mg/kg	0.011	P	0.021	P		U		U		U	0.49	P		U	0.0033
4,4'-DDE	mg/kg		U		U	0.0053	P		U		U	0.6			U	0.0033
4,4'-DDT	mg/kg	0.032	P	0.038		0.03		0.0052		0.092		0.76			U	0.0033
Aldrin	mg/kg		U	0.0023	P		U								U	0.005
alpha-Chlordane	mg/kg	0.009	P	0.017	P	0.013	P								U	0.094
beta-BHC	mg/kg		U	0.0031	P	0.0058	P		U		U		U		U	0.036
delta-BHC	mg/kg		U		U	0.0075	P		U	0.15	J	1.6		0.44		0.04
Dieldrin	mg/kg	0.011	P	0.0066	P	0.0087	P		U		U	0.32	J		U	0.005
Endosulfan I	mg/kg		U		U	0.0023	PJ		U		U		U		U	2.4
Endosulfan II	mg/kg		U		U		U		U		U		U		U	2.4
Endosulfan sulfate	mg/kg	0.018	P	0.013	P	0.022	P		U		U		U		U	2.4
Endrin	mg/kg	0.0051		0.0064	P	0.005	P		U		U		U		U	0.014
Endrin aldehyde	mg/kg	0.017		0.0098	P	0.013	P		U		U		U		U	
Endrin ketone	mg/kg	0.022	P	0.042		0.039	P								U	
gamma-BHC (Lindane)	mg/kg		U		U		U		U		U		U		U	
gamma-Chlordane	mg/kg	0.011		0.017	P	0.01	P		U	0.11	J	0.79	J		U	
Heptachlor	mg/kg		U		U		U		U		U	0.39			U	0.042
Heptachlor epoxide	mg/kg	0.0067		0.004	P	0.021			U		U		U		U	
Methoxychlor	mg/kg	0.018	PJ		U	0.06	P		U		U		U		U	

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TABLE 3-12 TOTAL ORGANIC CARBON ANALYTICAL RESULTS IN SEDIMENT

	Sample Location		SED-01			SED-02			SED-03	
	Sample Depth (in)	0-6	6-12	12-24	0-6	6-12	12-24	0-6	6-12	12-24
Parameter List	Sample Date		1/14/2010			1/14/2010			1/14/2010	
USEPA Method 9060	Sample Type		Composite			Composite			Composite	
Total Organic Compound	(mg/kg)	20000	20000	18000	29000	29000	32000	53000	50000	46000
Average Organic Carbon (OC)	mgOC/kg					28047				
Standard Deviation	mgOC/kg					14732				
Confidence Limit (95%)	mgOC/kg					7218				
Lower Confidence Limit	mgOC/kg					20829				
	Sample Location		SED-04			SED-05			SED-06	
	Sample Depth (in)	0-6	6-12	12-24	0-6	6-12	12-24	0-6	6-12	12-24
Parameter List	Sample Date		1/14/2010			1/14/2010			1/14/2010	
USEPA Method 9060	Sample Type		Composite			Composite			Composite	
Total Organic Compound	(mg/kg)	43000	23000	45000	6500	NA	NA	10000	NA	NA
								SED-DUP01		
	Sample Location		SED-11			SED-12		SED-11		
	Sample Depth (in)	0-6	6-12	12-24	0-6	6-12	12-24	0-6		
Parameter List	Sample Date	•	1/14/2010			1/14/2010	•	1/14/2010		
USEPA Method 9060	Sample Type		Composite			Composite		Composite		
Total Organic Compound	(mg/kg)	20000	NA	NA	8300	NA	NA	24000		

NOTE: USEPA = United States Environmental Protection Agency.

mg/kg = miligrams per kilogram = parts per million (ppm)

NA = Not analyzed.

Data provided by Mitkem. Only analytes that were detected in at least one sample are shown. Data validation to be completed by Environmental Data Validation, Inc.

Old Ley Creek Channel Site (7-34-074)

Town of Salina, New York

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TABLE 3-13 DERIVATION OF SEDIMENT CRITERIA FOR SELECT CONTAMINANTS OF CONCERN

				Hu	man Health			Benthic Aquation	c Life		Benthic Aquation	Life		Wildlife	
				Bioa	accumulation	ı		Acute Toxic	ity		Chronic Toxic	city	1	Bioaccumula	tion
				Water	Sediment	Sediment	Water	Sediment	Sediment	Water	Sediment	Sediment	Water	Sediment	Sediment
				Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria
Contaminant	Log K _{ow}	Value K _{ow}	% Carbon	μg/l	μg/gOC	μg/kg	μg/l	μg/gOC	μg/kg	μg/l	μg/gOC	μg/kg	μg/l	μg/gOC	μg/kg
			<u></u>			VOLATIL	E ORGANIC	COMPOUNDS							
1,1-dichloroethene	1.48	30.2	20.8290	0.8	0.02	5.0322									
1,2,4-trimethlybenzene	3.75	5,623.4	20.8290				290	1631	339677.2164	33	186	38652.9246			
Ethylbenzene	3.15	1,412.5	20.8290				150	212	44132.6168	17	24	5001.6966			
Isopropylbenzene	3.66	4,570.9	20.8290				23	105	21897.5868	2.6	12	2475.3794			
Naphthalene	3.37	2,344.2	20.8290				110	258	53710.7362	13	30	6347.6325			
Xylene	3.15	1,412.5	20.8290				590	833	173588.2926	65	92	19124.1339			
Toluene	2.69	489.8	20.8290				480	235	48967.6945	100	49	10201.6030			
Vinyl Chloride	0.6	4.0	20.8290	18.0000	0.0700	14.9259									
					S	EMIVOLAT	ILE ORGAN	IC COMPOUN	DS						
Acenaphthene	4.33	21,379.6	20.8290								140.0000	29160.6000			
Anthracene	4.45	28,183.8	20.8290				35.0000	986.0000	205464.3433	3.8000	107.0000	22307.5573			
Benzo(a)anthracene	5.61	407,380.3	20.8290				0.2300	94.0000	19516.2448	0.0300	12.0000	2545.5971			
Benzo(a)pyrene	6.04	1,096,478.2	20.8290	0.0012	1.3000	274.0625									
Bis(2-ethylhexyl)phthalate	5.3	199,526.2	20.8290							0.6000	199.5000	24935.5913			
Dichlorobenzenes	3.38	2,398.8	20.8290				50.0000	120.0000	24982.6454	5.0000	12.0000	2499.4800			
Fluoranthene	5.19	154,881.7	20.8290								1020.0000	212455.8000			
Fluorene	4.18	15,135.6	20.8290				4.8000	73.0000	15132.4643	0.5400	8.0000	1702.4022			
2-methylnaphthalene	3.86	7,244.4	20.8290				42.0000	304.0000	63374.9618	4.7000	34.0000	7081.8600			
Naphthalene	3.37	2,344.2	20.8290				110.0000	258.0000	53710.7362	13.0000	30.0000	6347.6325			
Phenanthrene	4.45	28,183.8	20.8290								120.0000	24994.8000			
Phenol	2	100.0	20.8290							5.0000	0.5000	104.1450			
Pyrene	5.32	208,929.6	20.8290				42.0000	8775.0000	1827753.8626	4.6000	961.0000	200182.5659			
					PES	TICIDES/PC	LYCHLORI	NATED BIPHE	NYLS						
Aldrin	5.0	100,000.0	20.8290	0.0010000	0.1000	20.8290							0.0077	0.7700	160.3833
a-BHC	3.8	6,309.6	20.8290	0.0090000	0.0600	11.8280	2.0000	12.6000	2628.4421	0.0100	0.0600	13.1422	0.2300	1.5000	302.2708
d-BHC	3.8	6,309.6	20.8290	0.0090000	0.0600	11.8280	2.0000	12.6000	2628.4421	0.0100	0.0600	13.1422	0.2300	1.5000	302.2708
g-BHC (Lindane)	3.8	6,309.6	20.8290	0.0090000	0.0600	11.8280	2.0000	12.6000	2628.4421	0.0100	0.0600	13.1422	0.2300	1.5000	302.2708
Chlordane	2.78	602.6	20.8290	0.0020000	0.0010	0.2510	2.4000	1.4000	301.2171	0.0430	0.0300	5.3968	0.0100	0.0060	1.2551
4,4'-DDD	6.0	1,000,000.0	20.8290	0.0000100	0.0100	2.0829							0.0010	1.0000	208.2900
4,4'-DDE	6.0	1,000,000.0	20.8290	0.0000100	0.0100	2.0829							0.0010	1.0000	208.2900
4,4'-DDT	6.0	1,000,000.0	20.8290	0.0000100	0.0100	2.0829	1.1000	1100.0000	229119.0000	0.0010	1.0000	208.2900	0.0010	1.0000	208.2900
Dieldrin	5.0	100,000.0	20.8290	0.0010000	0.1000	20.8290					9.0000	1874.6100	0.0077	0.7700	160.3833
Endosulfan (I)	3.55	3,548.1	20.8290				0.2200	0.7800	162.5890	0.0090	0.0300	6.6514			
Endosulfan (II)	3.55	3,548.1	20.8290				0.2200	0.7800	162.5890	0.0090	0.0300	6.6514			
Endosulfan Sulfate			20.8290												
Endrin	5.6	398,107.2	20.8290	0.0020000	0.8000	165.8435					4.0000	833.1600	0.0019	0.8000	157.5513
Endrin Ketone			20.8290												
Heptachlor	4.4	25,118.9	20.8290	0.0000300	0.0008	0.1570	0.5200	13.1000	2720.6443	0.0038	0.1000	19.8816	0.0010	0.0300	5.2320
Heptachlor Epoxide	4.4	25,118.9	20.8290	0.0000300	0.0008	0.1570	0.5200	13.1000	2720.6443	0.0038	0.1000	19.8816	0.0010	0.0300	5.2320
Methoxychlor	4.3	19,952.6	20.8290							0.0300	0.6000	124.6780			
PCBs (Total)	6.14	1,380,384.3	20.8290	0.0000006	0.0008	0.1725	2.0000	2760.8000	575040.4769	0.0140	19.3000	4025.2833	0.0010	1.4000	287.5202

NOTE: K_{ow} =

 $\mu g/l$ = Micrograms per Liter.

 $\mu g/gOC = Micrograms$ per gram organic carbon.

μg/kg = Micrograms per kilogram.

 $4,4'\text{-}DDD=4,4'\text{-}Dichlorodiphenyldichloroethane}$

 $4,4'\text{-}DDE = 4,4'\text{-}Dichlorodiphenyldichloroethylene}$

4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

PCB _ = Polychlorinated Biphenyl.

EA Project No.: 14368.42 Revision: DRAFT Table 3-14, Page 1 of 3 July 2010

TABLE 3-14 VOLATILE ORGANIC COMPOUND DETECTIONS IN SEDIMENT

	Sample Location Sample Depth (in)	0-6	SED-01	ļ	12-24		0-6		SED-02	2	12-24		0-6		SED-03	3	12-24		Sediment Criteria Benthic
	Sample Date	0-0	 1/14/201	0	12-24		0-0		1/14/201	0	12-24		0-0		1/14/201	0	12-24		Aquatic Wildlife Chronic
Parameter List	-																		Toxicity or Human Health
USEPA Method 8260_LOW	Sample Type		 Composi		1	_		_	Composi	te					Composi				Bioaccumulation* (mg/kg)
1,1-Dichloroethane	mg/kg	NR		U		U	NR			U		U	0.47	J	0.39	J		U	
1,1-Dichloroethene	mg/kg	NR		U		U	NR			U		U		U		U		U	0.005*
1,2,4-Trimethylbenzene	mg/kg	NR	0.0067	J	0.075		NR		0.013		0.037			U		U		U	39
1,3,5-Trimethylbenzene	mg/kg	NR		U	0.02		NR		0.0052	J	0.012			U		U		U	
2-Butanone	mg/kg	NR		U		U	NR			U		U		U		U		U	
Acetone	mg/kg	NR	0.0098		0.0068	J	NR		0.024		0.011			U		U		U	
Carbon disulfide	mg/kg	NR		U		U	NR			U		U		U		U		U	
Chloroethane	mg/kg	NR		U		U	NR			U		U		U		U		U	
cis-1,2-Dichloroethene	mg/kg	NR		U		U	NR			U		U	22		20		15		
Ethylbenzene	mg/kg	NR		U	0.02		NR			U		U		U		U		U	5
Isopropylbenzene	mg/kg	NR		U	0.0051	J	NR			U	0.0033	J		U		U		U	2.5
m,p-Xylene	mg/kg	NR	0.0055	J	0.17		NR			U	0.009			U		U		U	19
Methylene chloride	mg/kg	NR		U		U	NR			U		U		U		U		U	
Naphthalene	mg/kg	NR		U	0.0031	J	NR			U		U		U		U		U	6.3
n-Butylbenzene	mg/kg	NR		U	0.0029	J	NR			U	0.0029	J		U		U		U	
n-Propylbenzene	mg/kg	NR		U	0.0098		NR			U	0.0056	J		U		U		U	
o-Xylene	mg/kg	NR		U	0.051		NR			U		U		U		U		U	19
Toluene	mg/kg	NR		U	0.0044	J	NR			U		U		U		U		U	10
trans-1,2-Dichloroethene	mg/kg	NR		U		U	NR			U		U		U		U		U	
Vinyl chloride	mg/kg	NR		U		U	NR			U		U	4.7	Е	4.6		3.8		0.015*
Xylene (Total)	mg/kg	NR	0.0055	J	0.22		NR			U	0.009			U		U		U	19

NOTE: USEPA = United States Environmental Protection Agency.

mg/kg = Milligrams per kilogram

NR = No Recovery

= Compound was analyzed for, but not detected.

= Estimated Value.

= Compound response exceeded the response of the highest standard in the initial calibration range of the instrument for that specific analysis.

Bold values indicate exceedence of Benthic Aquatic Life Chronic/Acute Toxicity.

Standards taken from NYSDEC Technical Guidance for Screening Contaminated Sediments (January 1999).

TABLE 3-14 VOLATILE ORGANIC COMPOUND DETECTIONS IN SEDIMENT

_				TABLE	<i>J</i> 11	VOLITILI	JOR	G/ II VIC COI	шО	OND DETE	CIR	JNS IN SED	11411	2111					
	Sample Location			SED-04	1					SED-05	5					SED-06			Sediment Criteria Benthic
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24	Aquatic Wildlife Chronic
	Sample Date	0.0		1/14/201	n			0.0		1/14/201	0	122.		0.0	- 1	1/14/2010		12 2 .	Toxicity or Human Health
Parameter List	Sample Date			1/14/201	.0					1/14/201						1/14/2010			Bioaccumulation* (mg/kg)
USEPA Method 8260_LOW	Sample Type			Composi	ite					Composi	te					Composite	:		
1,1-Dichloroethane	mg/kg		U		U		U		U	NR		NR			U	NR		NR	
1,1-Dichloroethene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	0.005*
1,2,4-Trimethylbenzene	mg/kg	0.0078	J	0.0019	J	0.023			U	NR		NR			U	NR		NR	39
1,3,5-Trimethylbenzene	mg/kg		U		U	0.0071	J		U	NR		NR			U	NR		NR	
2-Butanone	mg/kg	0.044			U	0.014			U	NR		NR			U	NR		NR	
Acetone	mg/kg	0.18		0.04		0.11			U	NR		NR			U	NR		NR	
Carbon disulfide	mg/kg		U		U	0.0035	J		U	NR		NR			U	NR		NR	
Chloroethane	mg/kg		U		U		U		U	NR		NR			U	NR		NR	
cis-1,2-Dichloroethene	mg/kg		U	0.0047	J		U	0.0015	J	NR		NR			U	NR		NR	
Ethylbenzene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	5
Isopropylbenzene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	2.5
m,p-Xylene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	19
Methylene chloride	mg/kg		U		U		U		U	NR		NR			U	NR		NR	
Naphthalene	mg/kg	0.0084	J		U	0.0026	J		U	NR		NR			U	NR		NR	6.3
n-Butylbenzene	mg/kg		U		U	0.007	J		U	NR		NR			U	NR		NR	
n-Propylbenzene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	
o-Xylene	mg/kg		U		U	0.0026	J		U	NR		NR			U	NR		NR	19
Toluene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	10
trans-1,2-Dichloroethene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	
Vinyl chloride	mg/kg		U		U		U		U	NR		NR			U	NR		NR	0.015*
Xylene (Total)	mg/kg		U		U	0.0026	J		U	NR		NR			U	NR		NR	19

TABLE 3-14 VOLATILE ORGANIC COMPOUND DETECTIONS IN SEDIMENT

			THIDDED 3	14 VOLATILE	OROZHVIC C	OMI O	OND DETI	LCIN	JIII III BEDII	VILITI	
	Sample Location		SED-11				SED-12	2		SED-DUP01 SED-11	Sediment Criteria Benthic
	Sample Depth (in)	0-6	6-12	12-24	0-6	5	6-12		12-24	0-6	Aquatic Wildlife Chronic
	Sample Date		1/14/2010				1/14/201	10		1/14/2010	Toxicity or Human Health Bioaccumulation* (mg/kg)
Parameter List	C 1 . T		G								Bioaccumulation (mg/kg)
USEPA Method 8260_LOW	Sample Type		Composite				Composi	ite		Composite	
1,1-Dichloroethane	mg/kg	U	NR	NR		U	NR		NR	U	
1,1-Dichloroethene	mg/kg	U	NR	NR		U	NR		NR	U	0.005*
1,2,4-Trimethylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	39
1,3,5-Trimethylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	
2-Butanone	mg/kg	U	NR	NR		U	NR		NR	U	
Acetone	mg/kg	U	NR	NR		U	NR		NR	0.013	
Carbon disulfide	mg/kg	U	NR	NR		U	NR		NR	U	
Chloroethane	mg/kg	U	NR	NR		U	NR		NR	U	
cis-1,2-Dichloroethene	mg/kg	U	NR	NR	0.0031	J	NR		NR	U	
Ethylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	5
Isopropylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	2.5
m,p-Xylene	mg/kg	U	NR	NR		U	NR		NR	U	19
Methylene chloride	mg/kg	U	NR	NR		U	NR		NR	U	
Naphthalene	mg/kg	U	NR	NR		U	NR		NR	U	6.3
n-Butylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	
n-Propylbenzene	mg/kg	U	NR	NR		U	NR		NR	U	
o-Xylene	mg/kg	U	NR	NR		U	NR		NR	U	19
Toluene	mg/kg	U	NR	NR		U	NR		NR	0.0039 J	10
trans-1,2-Dichloroethene	mg/kg	U	NR	NR		U	NR		NR	U	
Vinyl chloride	mg/kg	U	NR	NR		U	NR		NR	U	0.015*
Xylene (Total)	mg/kg	U	NR	NR		U	NR		NR	U	19

TABLE 3-15 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SEDIMENT

	Sample Location		SE	D-01				SED-)2					SED-0	3			
	Sample Depth (in)	0-6	e	-12	12-24		0-6	6-12		12-24		0-6		6-12		12-24		Sediment Criteria Benthic
Parameter List	Sample Date		1/1-	1/2010				1/14/2	010					1/14/20	10			Aquatic Wildlife Chronic
USEPA Method 8270	Sample Type		Cor	posite				Compo	site					Compos	site			Toxicity or Human Health Bioaccumulation* (mg/kg)
1,2-Dichlorobenzene	mg/kg	NR		U		U	NR		U		U		U	•	U		U	2.5
2-Methylnaphthalene	mg/kg	NR	0.1	2 J	0.21	J	NR	0.069	J	0.096	J	0.19	J	0.16	J	0.087	J	7
4-Chloroaniline	mg/kg	NR		U		U	NR		U		U	0.37	J	0.19	J	0.18	J	
4-Methylphenol	mg/kg	NR		U		U	NR		U		U	0.1	J	0.074	J		U	
Acenaphthene	mg/kg	NR		U		U	NR	0.13	J	0.11	J	0.82	J	0.51	J	0.39	J	29
Acenaphthylene	mg/kg	NR	0.09	6 J	0.062	J	NR	0.36	J	0.23	J	1.5		1.1		0.73		
Anthracene	mg/kg	NR	0.1	1 J	0.069	J	NR	0.52	J	0.38	J	3.1		2		1.5		22
Benzo(a)anthracene	mg/kg	NR	0.2	7 J	0.16	J	NR	0.94		0.69		5.7		3.9		3		2.5
Benzo(a)pyrene	mg/kg	NR	0.2	В Ј	0.18	J	NR	1		0.73		5.6		4		2.8		0.27*
Benzo(b)fluoranthene	mg/kg	NR	0.4	1 J	0.27	J	NR	1.5		0.95		8.2		5.8		4		
Benzo(g,h,i)perylene	mg/kg	NR	0.2	J	0.15	J	NR	0.8		0.57		4		2.9		2		
Benzo(k)fluoranthene	mg/kg	NR	0.1	5 J	0.091	J	NR	0.7		0.43	J	3.1		2.6		2		
Bis(2-ethylhexyl)phthalate	mg/kg	NR		U	0.18	J	NR	0.88		0.62		2.2		1.5		1.2		25
Butylbenzylphthalate	mg/kg	NR		U		U	NR		U		U		U		U		U	
Carbazole	mg/kg	NR		U		U	NR	0.11	J	0.073	J	0.74	J	0.39	J	0.33	J	
Chrysene	mg/kg	NR	0.3	1 J	0.2	J	NR	1.4		0.9		7.4		5.3		3.8		
Dibenzo(a,h)anthracene	mg/kg	NR		U		U	NR	0.21	J	0.16	J	1.1		0.75		0.53	J	
Dibenzofuran	mg/kg	NR		U		U	NR		U	0.058	J	0.44	J	0.28	J	0.21	J	
Di-n-butylphthalate	mg/kg	NR		U		U	NR		U		U		U		U		U	
Di-n-octylphthalate	mg/kg	NR		U		U	NR		U		U		U		U		U	
Fluoranthene	mg/kg	NR	0.6		0.38	J	NR	3		2		18	D	11		8.9		212
Fluorene	mg/kg	NR	0.04	.9 J		U	NR	0.21	J	0.18	J	1.4		0.88		0.69	J	1.7
Indeno(1,2,3-cd)pyrene	mg/kg	NR	0.2		0.15	J	NR	0.8		0.53	J	3.8		2.8		2		
Naphthalene	mg/kg	NR		U		U	NR		U		U		U	0.17	J		U	6.3
Phenanthrene	mg/kg	NR	0.2		0.17	J	NR	1.1		0.9		5.9		4.6		2.7		25
Phenol	mg/kg	NR		U		U	NR		U		U		U	0.12	J		U	0.1
Pyrene	mg/kg	NR	0.5		0.31	J	NR	2.2		1.6		12		8.7		6.7		200

NOTE: USEPA = United States Environmental Protection Agency.

mg/kg = Milligrams per kilogram.

NR = No Recovery

= Compound was analyzed for, but not detected.

= Estimated Value.

Bold values indicate exceedence of Benthic Aquatic Life Chronic/Acute Toxicity.

Standards taken from NYSDEC Technical Guidance for Screening Contaminated Sediments (January 1999)

TABLE 3-15 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SEDIMENT

	1	1		TABLE 3-	13 81	EMITY OLA	IILE	OKOANIC	COIV	IFOUND DI	LIEC	CTIONS IN S	טבט.	IIVILINI					1
				ann a						aed o	_					ann or			
	Sample Location		- 1	SED-04	1				- 1	SED-05)	1				SED-06	<u> </u>		
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24	Sediment Criteria Benthic
Parameter List	Sample Date			1/14/201	0					1/14/201	.0					1/14/2010)		Aquatic Wildlife Acute*
USEPA Method 8270	Sample Type			Composi	ite					Composi	te					Composit	e		Chronic Toxicity (mg/kg)
1,2-Dichlorobenzene	mg/kg		U		U		U		U	NR		NR			U	NR		NR	2.5
2-Methylnaphthalene	mg/kg	0.44	J	0.56		1.2			U	NR		NR		0.077	J	NR		NR	7
4-Chloroaniline	mg/kg	0.13	J		U	0.35	J		U	NR		NR			U	NR		NR	
4-Methylphenol	mg/kg	0.088	J		U	0.21	J		U	NR		NR			U	NR		NR	
Acenaphthene	mg/kg	1.5		1.1		2.9		0.1	J	NR		NR		0.55		NR		NR	29
Acenaphthylene	mg/kg	2.1		0.85		2.5		0.13	J	NR		NR		0.36	J	NR		NR	
Anthracene	mg/kg	4.8		2.4		8.9		0.37	J	NR		NR		1.9		NR		NR	22
Benzo(a)anthracene	mg/kg	8.6		3.5		15	D	1.6		NR		NR		6.9		NR		NR	2.5
Benzo(a)pyrene	mg/kg	7.5		3		13	D	1.3		NR		NR		5.7		NR		NR	0.27*
Benzo(b)fluoranthene	mg/kg	9.6		3.6		17	D	1.7		NR		NR		10	D	NR		NR	
Benzo(g,h,i)perylene	mg/kg	5		1.9		7.9		0.83		NR		NR		3.7		NR		NR	
Benzo(k)fluoranthene	mg/kg	4.6		2.2		7.9		0.8		NR		NR		3.2		NR		NR	
Bis(2-ethylhexyl)phthalate	mg/kg	1.3		0.77		4.4		0.32	J	NR		NR		1.1		NR		NR	25
Butylbenzylphthalate	mg/kg		U		U	0.12	J		U	NR		NR		0.12	J	NR		NR	
Carbazole	mg/kg	1.2		0.57		2		0.23	J	NR		NR		1.1		NR		NR	
Chrysene	mg/kg	9.6		4		17	D	1.7		NR		NR		7		NR		NR	
Dibenzo(a,h)anthracene	mg/kg	1.6		0.52		2.4		0.25	J	NR		NR		1.1		NR		NR	
Dibenzofuran	mg/kg	0.88		0.68		1.9		0.064	J	NR		NR		0.32	J	NR		NR	
Di-n-butylphthalate	mg/kg		U		U	0	U		U	NR		NR		0.11	J	NR		NR	
Di-n-octylphthalate	mg/kg		U		U	0	U		U	NR		NR			U	NR		NR	
Fluoranthene	mg/kg	26	D	11	D	43	D	4		NR		NR		19	D	NR		NR	212
Fluorene	mg/kg	2.5		1.6		5		0.15	J	NR		NR		0.77		NR		NR	1.7
Indeno(1,2,3-cd)pyrene	mg/kg	4.6		1.9		7.6		0.83		NR		NR		3.7		NR		NR	
Naphthalene	mg/kg	0.33	J	0.27	J	0.66	J		U	NR		NR			U	NR		NR	6.3
Phenanthrene	mg/kg	19	D	10	D	33	D	1.9		NR		NR		10	D	NR		NR	25
Phenol	mg/kg		U		U		U		U	NR		NR			U	NR		NR	0.1
Pyrene	mg/kg	20	D	8.8	D	33	D	2.9		NR		NR		14	D	NR		NR	200
NOTE: $D = Dilution of sample or or or or or or or or or or or or or $	extract.	•				•		•				•		•					

TABLE 3-15 SVOC DETECTIONS IN SEDIMENT

						IADLE	3-13	3 VOC DE I	ECI	IONS IN SI		ILIVI				
													SED-DUI	-		
	Sample Location			SED-11						SED-12	2	ı	SED-11		1	Sediment Criteria Benthic
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24	0-6			Aquatic Wildlife Acute Chronic
Parameter List	Sample Date			1/14/2010)					1/14/201	.0		1/14/201	.0		Toxicity or Human Health
USEPA Method 8270	Sample Type			Composit	e					Composi	te		Composi	te		Bioaccumulation* (mg/kg)
1,2-Dichlorobenzene	mg/kg		U	NR		NR		0.25	J	NR		NR	•	U		2.5
2-Methylnaphthalene	mg/kg	0.068	J	NR		NR		0.58		NR		NR	0.11	J		7
4-Chloroaniline	mg/kg		U	NR		NR		0.081	J	NR		NR		U		
4-Methylphenol	mg/kg		U	NR		NR			U	NR		NR	0.1	J		
Acenaphthene	mg/kg	0.3	J	NR		NR		2.8		NR		NR	0.46	J		29
Acenaphthylene	mg/kg	0.4	J	NR		NR		0.86		NR		NR	0.72			
Anthracene	mg/kg	1.2		NR		NR		6.5		NR		NR	1.8			22
Benzo(a)anthracene	mg/kg	3.7		NR		NR		17	D	NR		NR	6.3			2.5
Benzo(a)pyrene	mg/kg	3.4		NR		NR		14	D	NR		NR	6.1			0.27*
Benzo(b)fluoranthene	mg/kg	4.9		NR		NR		18	D	NR		NR	8.4	D		
Benzo(g,h,i)perylene	mg/kg	2.2		NR		NR		6.4		NR		NR	4.8			
Benzo(k)fluoranthene	mg/kg	2		NR		NR		5.2		NR		NR	3.2			
Bis(2-ethylhexyl)phthalate	mg/kg	0.72		NR		NR		1		NR		NR	2.2			25
Butylbenzylphthalate	mg/kg		U	NR		NR		8.8	D	NR		NR	0.17	J		
Carbazole	mg/kg	0.46	J	NR		NR		3.5		NR		NR	0.84			
Chrysene	mg/kg	4.1		NR		NR		18	D	NR		NR	7.5			
Dibenzo(a,h)anthracene	mg/kg	0.63		NR		NR		2		NR		NR	1			
Dibenzofuran	mg/kg	0.15	J	NR		NR		1.9		NR		NR	0.24	J		
Di-n-butylphthalate	mg/kg	0.051	J	NR		NR		0.045	J	NR		NR	0.097	J		
Di-n-octylphthalate	mg/kg		U	NR		NR		0	U	NR		NR	0.11	J		
Fluoranthene	mg/kg	9.4	D	NR		NR		45	D	NR		NR	15	D		212
Fluorene	mg/kg	0.36	J	NR		NR		3.5		NR		NR	0.6			1.7
Indeno(1,2,3-cd)pyrene	mg/kg	2.2		NR		NR		6.4		NR		NR	4.4			
Naphthalene	mg/kg		U	NR		NR		0.73		NR		NR	0.12	J		6.3
Phenanthrene	mg/kg	4		NR		NR		34	D	NR		NR	6.2			25
Phenol	mg/kg		U	NR		NR			U	NR		NR		U		0.1
Pyrene	mg/kg	6.5		NR		NR		34	D	NR		NR	12	D		200

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TABLE 3-16 METAL DETECTIONS IN SEDIMENT

	Sample Location		SED-0)1				SED-02						SED-03				NYSDEC	
	Sample Depth (in)	0-6	6-12		12-24		0-6	6-12		12-24		0-6		6-12		12-24		Sediment	NYSDEC
Parameter List	Sample Date		1/14/20	10				1/14/2010)					1/14/201	0				Sediment Criteria
USEPA Method 6010 & 7471	Sample Type		Compos	site				Composit	e					Composi	te			Effect Level (ppm)	Severe Effect Level (ppm)
Aluminum	mg/kg	NR	6040		6160		NR	7110		9570		7340		7110		12100			
Arsenic	mg/kg	NR	5		5.7		NR	7.9		8.4		12.7		7.7		4.4		6.0	33.0
Barium	mg/kg	NR	45	J	55.1	J	NR	72.5	J	94.7	J	157	J	131	J	201	J		
Beryllium	mg/kg	NR	0.23	J	0.24	J	NR	0.29	J	0.38	J	0.38	J	0.3	J	0.18	J		
Cadmium	mg/kg	NR	1.3		1.6		NR	0.96		1.5		3.7		1.4		0.33	В	0.6	9.0
Calcium	mg/kg	NR	20900		37200		NR	250000		40600		66400		23800		9380			
Chromium	mg/kg	NR	88.6	J	137	J	NR	173	J	323	J	557	J	222	J	67	J	26.0	110
Cobalt	mg/kg	NR	6.2	J	6	J	NR	5.2	J	9.1	J	6.2	J	5.1	J	4.7	J		
Copper	mg/kg	NR	230	J	474	J	NR	243	J	494	J	460	J	123	J	50.6	J	16.0	110
Iron	mg/kg	NR	20100	J	24300	J	NR	18000	J	35700	J	31800	J	14400	J	22100	J	2.0%	4.0%
Lead	mg/kg	NR	23	J	32	J	NR	54	J	80.4	J	334	J	148	J	45.8	J	31.0	110
Magnesium	mg/kg	NR	8900	J	8900	J	NR	10100	J	11600	J	11600	J	5490	J	5340	J		
Manganese	mg/kg	NR	285	J	305	J	NR	523	J	552	J	287	J	147	J	150	J	460	1,100
Mercury	mg/kg	NR	0.11		0.12		NR	0.21		0.13			U	0.15		0.36		0.15	1.3
Nickel	mg/kg	NR	81.4	J	128	J	NR	74.8	J	172	J	192	J	77	J	31	J	16.0	50.0
Potassium	mg/kg	NR	899	J	816	J	NR	1020	J	1240	J	1080	J	898	J	1510	J		
Selenium	mg/kg	NR		U		U	NR		J		U		U	1.2		1.7			
Silver	mg/kg	NR	0.5		0.27		NR	0.24		0.52	J	2.7		0.54			U	1	2.2
Sodium	mg/kg	NR	684		696		NR	567		540		345		206		214			
Thallium	mg/kg	NR	0.73		1		NR	3.6		1.3	В	1.4		0.58			U		
Vanadium	mg/kg	NR	13		14.3		NR	14.3		21.7		27.5		24		24.7			
Zinc	mg/kg	NR	684	J	1480	J	NR	733	J	2690	J	631	J	192	J	94.6	J	120	270

NOTE: USEPA = United States Environmental Protection Agency.

NYSDEC = New York State Department of Environmental Conservation.

= Parts per million. mg/kg = Milligrams per kilogram. NR = No Recovery

= Less than Contract Required Quantitation Limit, but greater than or equivalent to Method Dectection Limit.

В

U = Less than Method Detection Limit.

Bold values indicate exceedence of Lowest Effect Level; bold and shaded values indicate exceedence of Lowest and Severe Effect Levels.

Standards taken from NYSDEC Technical Guidance for Screening Contaminated Sediments (January 1999)

TABLE 3-16 METAL DETECTIONS IN SEDIMENT

							111	DDD 0 TO III	IL I I I IL	DETECTION	7110 1	N SEDIMEN								
	Sample Location			SED-(04					SED-05						SED-06			NYSDEC Sediment	NYSDEC
Parameter List	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Sediment Criteria
USEPA Method	Sample Date			1/14/20						1/14/2010)			-		1/14/2010			Effect Level	Severe Effect
6010 & 7471	Sample Type			Compo	site					Composit	e					Composite	;		(ppm)	Level (ppm)
Aluminum	mg/kg	8070		5820		6980		983		NR		NR	22	0		NR		NR		
Arsenic	mg/kg	12.2		4.2		11.3		5.8		NR		NR	3.	:		NR		NR	6.0	33.0
Barium	mg/kg	163	J	56.8	J	150	J	12	J	NR		NR	31	7	J	NR		NR		
Beryllium	mg/kg	0.47	J	0.36	J	0.36	J	0.082	J	NR		NR	0.1	1	J	NR		NR		
Cadmium	mg/kg	7.7		1.5		4.7		0.31		NR		NR	0.3	3		NR		NR	0.6	9.0
Calcium	mg/kg	51900		23600		68800		263000		NR		NR	1150	00		NR		NR		
Chromium	mg/kg	912	J	191	J	631	J	29.2	J	NR		NR	21	7	J	NR		NR	26.0	110
Cobalt	mg/kg	7	J	5.8	J	6.5	J	2.4	J	NR		NR	2.	i	J	NR		NR		
Copper	mg/kg	850	J	159	J	374	J	53.1	J	NR		NR	59.	1	J	NR		NR	16.0	110
Iron	mg/kg	19800	J	11800	J	17900	J	39200	J	NR		NR	101	00	J	NR		NR	2.0%	4.0%
Lead	mg/kg	324	J	79.3	J	489	J	13.7	J	NR		NR	47.	5	J	NR		NR	31.0	110
Magnesium	mg/kg	10400	J	9440	J	12000	J	13700	J	NR		NR	109	00	J	NR		NR		
Manganese	mg/kg	390	J	166	J	289	J	235	J	NR		NR	14		J	NR		NR	460	1,100
Mercury	mg/kg	0.56		0.16		0.13		0.01	В	NR		NR	0.1			NR		NR	0.15	1.3
Nickel	mg/kg	312	J	71.3	J	187	J	11	J	NR		NR	9.		J	NR		NR	16.0	50.0
Potassium	mg/kg	1040	J	676	J	1010	J	337	J	NR		NR	43		J	NR		NR		
Selenium	mg/kg	1.6		1.2			U		U	NR		NR			U	NR		NR		
Silver	mg/kg	10.3		1.6	В	4.6			U	NR		NR			U	NR		NR	1	2.2
Sodium	mg/kg	441		172		339		197		NR		NR	28			NR		NR		
Thallium	mg/kg	1.5		0.81	В	1.2		3.1		NR		NR	1			NR		NR		
Vanadium	mg/kg	25		14.6		30.1		6.4		NR		NR	12			NR		NR		
Zinc	mg/kg	457	J	112	J	401	J	34.8	J	NR		NR	13	5	J	NR		NR	120	270

Remedial Investigation Report

TABLE 3-16 METAL DETECTIONS IN SEDIMENT

							 DEE S TO III	LLITIL	DETECTION	710 11	1 DEDIME:	11				
	Sample Location			SED-1	1				SED-12				SED-DUI SED-1	-	NYSDEC	Madred
	Sample Depth (in)	0-6		6-12		12-24	0-6		6-12		12-24		0-6	L	Sediment	NYSDEC
Parameter List	1 1 , ,	0-6				12-24	0-6				12-24					Sediment Criteria
0.0000000000000000000000000000000000000	Sample Date			1/14/20					1/14/2010				1/14/201		Effect Level	Severe Effect
	Sample Type			Compo	site				Composit	e			Compos	ite	(ppm)	Level (ppm)
Aluminum	mg/kg	3290		NR		NR	2120		NR		NR		4020			
Arsenic	mg/kg	7.2		NR		NR	2.6		NR		NR		9.7		6.0	33.0
Barium	mg/kg	32.5	J	NR		NR	25.6		NR		NR		40.8			
Beryllium	mg/kg	0.15	J	NR		NR	0.11		NR		NR		0.17			
Cadmium	mg/kg	0.52		NR		NR	0.3		NR		NR		0.66		0.6	9.0
Calcium	mg/kg	103000		NR		NR	197000		NR		NR		86600			
Chromium	mg/kg	42.1	J	NR		NR	45.3		NR		NR		51.9		26.0	110
Cobalt	mg/kg	3.2	J	NR		NR	2		NR		NR		3.8			
Copper	mg/kg	49.6	J	NR		NR	57.5		NR		NR		61.4		16.0	110
Iron	mg/kg	9080	J	NR		NR	7740		NR		NR		10600		2.0%	4.0%
Lead	mg/kg	70.2	J	NR		NR	30.3		NR		NR		66.2		31.0	110
Magnesium	mg/kg	9650	J	NR		NR	18600		NR		NR		10900			
Manganese	mg/kg	210	J	NR		NR	185		NR		NR		200		460	1,100
Mercury	mg/kg	0.11		NR		NR	0.027		NR		NR		3.1		0.15	1.3
Nickel	mg/kg	16.9	J	NR		NR	13.4		NR		NR		21.4		16.0	50.0
Potassium	mg/kg	601	J	NR		NR	457		NR		NR		649			
Selenium	mg/kg		U	NR		NR	1.2		NR		NR			U		
Silver	mg/kg		U	NR		NR		U	NR		NR		0.15		1	2.2
Sodium	mg/kg	300		NR		NR	224		NR		NR		343			
Thallium	mg/kg	1.6		NR		NR	2.7		NR		NR		1.1			
Vanadium	mg/kg	12.6		NR		NR	12.2		NR		NR		14.9			
Zinc	mg/kg	113	J	NR		NR	113		NR		NR		159		120	270

TABLE 3-17 POLYCHLORINATED BIPHENYL DETECTIONS IN SEDIMENT

													_							ı
	Sample Location			SED-0	1					SED-02	2					SED-03				
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12	_	12-24		0-6		6-12		12-24		
	Sample Date			1/14/20	10	1221		- 0 0		1/14/201	10	1221		- 0		1/14/201	0	1221		Sediment Criteria Human
Parameter List USEPA Method 8082	Sample Type			Compos						Composi	_					Composit	_			Health Bioaccumulation (mg/kg)
Aroclor-1242	mg/kg	NR		Compos	U		U	NR	ı	Composi	U		U	48		19	T	13	D	(Hig/kg)
Aroclor-1248	mg/kg	NR		6.3	I	31		NR	-	16	0	25	U	40	U	17	U	13	U	
Aroclor-1254	mg/kg	NR		3.1	,	11		NR	1	8.2		13		9.4	U	4.1		2.7	D	
Aroclor Total	mg/kg	NR		9.4		42		NR		24.2		38		57.4		23.1		15.3		0.0002
				I.																
		İ																		
	Sample Location	<u> </u>		SED-0	4					SED-05	5					SED-06	i			
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6		6-12		12-24		Sediment Criteria Human
Parameter List	Sample Date			1/14/20	10					1/14/201	10					1/14/201	0			Health Bioaccumulation
USEPA Method 8082	Sample Type			Compos	ite					Composi	ite					Composit	te			(mg/kg)
Aroclor-1242	mg/kg	23		9.4		56			U	NR		NR			U	NR		NR		
Aroclor-1248	mg/kg		U		U		U	0.41	J	NR		NR		0.061	J	NR		NR		
Aroclor-1254	mg/kg	4		2.1		8.3			U	NR		NR			U	NR		NR		
Aroclor Total	mg/kg	27		11.5		64.3		0.41		NR		NR		0.061		NR		NR		0.0002
	T																			1
		İ												SED-DUP	-					
	Sample Location			SED-1	1					SED-12	2			SED-11						
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24		0-6						Sediment Criteria Benthio
Parameter List	Sample Date	<u> </u>		1/14/20	10					1/14/201	10			1/14/201	0					Aquatic Wildlife Acute*
USEPA Method 8082	Sample Type	l		Compos	ite					Composi	ite			Composi	te					Chronic Toxicity (mg/kg
Aroclor-1242	mg/kg		U	NR		NR			U	NR		NR			U					
Aroclor-1248	mg/kg	1.4		NR		NR		1.8	J	NR		NR		1.8						
Aroclor-1254 Aroclor Total	mg/kg	0.57 1.97		NR		NR		0.79		NR		NR			U					
				NR				2.59		NR		NR								

NOTE: USEPA = United States Environmental Protection Agency.

 $mg/kg \ = Milligrams \ per \ kilogram.$

NR = No Recovery

= Compound was analyzed for, but not detected.

D = Secondary Dilution Factor.

= Estimated Value.

Bold values indicate exceedence of Benthic Aquatic Life Chronic/Acute Toxicity.

Standards taken from NYSDEC Technical Guidance for Screening Contaminated Sediments (January 1999).

TABLE 3-18 PESTICIDE DETECTIONS IN SEDIMENT

	Sample Location		SED-01	Į.				SED-02	2					SED-03	3			Sediment Criteria Benthic
	Sample Depth (in)	0-6	6-12		12-24		0-6	6-12		12-24		0-6		6-12		12-24		Aquatic Wildlife Chronic Toxicity* or Human Health
	Sample Date		1/14/201	.0				1/14/201	0					1/14/201	.0			Bioaccumulation or Wildlife
Parameter List																		Bioaccumulation**
USEPA Method 8081	Sample Type		 Composi	te				 Composi	te					Composi	te			(mg/kg)
4,4'-DDD	mg/kg	NR	0.051	P		U	NR	0.16	J		U		U		U	0.02	J	0.002
4,4'-DDE	mg/kg	NR	0.066		0.28	J	NR	0.13	J	0.28			U		U	0.059		0.002
4,4'-DDT	mg/kg	NR	0.11		0.41		NR	0.18		0.31		0.27		0.14		0.069		0.002
alpha-Chlordane	mg/kg	NR		U		U	NR		U		U		U		U		U	0.0003
beta-BHC	mg/kg	NR		U		U	NR		U		U		U		U		U	0.013*
delta-BHC	mg/kg	NR		U		U	NR		U		U		U		U		U	0.013*
Dieldrin	mg/kg	NR	0.053	J		U	NR		U		U		U		U	0.027	J	0.0003
Endosulfan I	mg/kg	NR		U		U	NR		U		U		U		U	0.013	J	0.007*
Endosulfan sulfate	mg/kg	NR		U		U	NR		U		U		U		U	0.018		
Endrin aldehyde	mg/kg	NR		U		U	NR		U		U		U		U	0.021		
gamma-BHC (Lindane)	mg/kg	NR		U		U	NR		U		U	0.32	J	0.15	J	0.085	D	0.013*
gamma-Chlordane	mg/kg	NR	0.097		0.44	J	NR	0.27	J	0.47	J	0.21	J	0.092	J	0.069	D	0.0003
Heptachlor	mg/kg	NR	0.12	J	0.48	J	NR	0.33		0.53		0.45	J	0.28		0.15	D	0.005**
Heptachlor epoxide	mg/kg	NR		U		U	NR		U	•	U		U		U	,	U	0.005**

NOTE: USEPA = United States Environmetral Protection Agency.

mg/kg = Milligrams per kilogram.

4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

= No Recovery

= Compound was analyzed for, but not detected.

= Estimated Value.

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene

4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

= Dilution of sample or extract.

Bold values indicate exceedence of Benthic Aquatic Life Chronic/Acute Toxicity.

Standards taken from NYSDEC Technical Guidance for Screening Contaminated Sediments (January 1999).

TABLE 3-18 PESTICIDE DETECTIONS IN SEDIMENT

I 						TABLE.)-10 I	ESTICIDE.	DLII	ECTIONS IN	SED	TIVILLIVI							
	Sample Location			SED-04	1					SED-05					SED-06			0.11	
	Sample Location			SLD-0-						SLD-03					SED-00			Sediment Crite Aquatic Wildli	
	Sample Depth (in)	0-6		6-12		12-24		0-6		6-12		12-24	0-6		6-12		12-24	Toxicity* or Hu	
	1 1 1																	Bioaccumul	
	Sample Date			1/14/201	0					1/14/2010	0				1/14/2010	0		Wildl	ife
Parameter List																		Bioaccumu	lation**
USEPA Method 8081	Sample Type			Composi	ite					Composit	e				Composit	ie		(mg/k	.g)
4,4'-DDD	mg/kg		U		U		U		U	NR		NR	0.0078	J	NR		NR	0.00	2
4,4'-DDE	mg/kg		U		U		U		U	NR		NR		U	NR		NR	0.00	2
4,4'-DDT	mg/kg	0.13		0.077			U	0.0045		NR		NR	0.0083		NR		NR	0.00	2
alpha-Chlordane	mg/kg		U		U		U		U	NR		NR	0.0044	J	NR		NR	0.000)3
beta-BHC	mg/kg		U		U		U	0.006	J	NR		NR		U	NR		NR	0.013	3*
delta-BHC	mg/kg		U		U		U	0.01	J	NR		NR		U	NR		NR	0.013	3*
Dieldrin	mg/kg		U		U		U		U	NR		NR		U	NR		NR	0.000)3
Endosulfan I	mg/kg		U		U		U		U	NR		NR		U	NR		NR	0.007	/*
Endosulfan sulfate	mg/kg		U		U		U		U	NR		NR	0.0056	J	NR		NR		
Endrin aldehyde	mg/kg		U		U		U		U	NR		NR	0.0047	J	NR		NR		
gamma-BHC (Lindane)	mg/kg	0.33	J	0.13	J	0.24	J	0.0031	J	NR		NR		U	NR		NR	0.013	3*
gamma-Chlordane	mg/kg		U	0.048	J	•	U	0.019		NR		NR	0.03		NR		NR	0.000)3
Heptachlor	mg/kg	0.16	P	0.087	J	0.66			U	NR		NR		U	NR		NR	0.005	
Heptachlor epoxide	mg/kg		U		U		U	0.012		NR		NR		U	NR		NR	0.005	**

TABLE 3-18 PESTICIDE DETECTIONS IN SEDIMENT

		1			IMDL	J J-10 I	PESTICIDE	DLII	20110110111	DLD	IIVILITI				
													SED-DUI		
	Sample Location			SED-11					SED-12				SED-1	1	Sediment Criteria Ben
															Aquatic Wildlife Chro
	Sample Depth (in)	0-6		6-12	12-2	24	0-6		6-12		12-24		0-6		Toxicity* or Human He
	0 1 5			1/14/2010					1/14/201	0			1/14/20:		Bioaccumulation or
	Sample Date			1/14/2010			1		1/14/2010	J			1/14/20	10	Wildlife
Parameter List	Sample Type			Composite					Composit				Compos	ita	Bioaccumulation**
USEPA Method 8081	Sample Type	0.0055				_	0.011	- n		e) ID	_	Compos	_	(mg/kg)
4,4'-DDD	mg/kg	0.0055	J	NR	NR		0.011	P	NR		NR			U	0.002
4,4'-DDE	mg/kg	0.008	J	NR	NR		0.014		NR		NR			U	0.002
4,4'-DDT	mg/kg	0.016		NR	NR		0.022		NR		NR		0.031		0.002
alpha-Chlordane	mg/kg		U	NR	NR		0.0065		NR		NR			U	0.0003
beta-BHC	mg/kg	0.011		NR	NR			U	NR		NR		0.022	J	0.013*
delta-BHC	mg/kg	0.031		NR	NR			U	NR		NR			U	0.013*
Dieldrin	mg/kg	0.0067	J	NR	NR			U	NR		NR			U	0.0003
Endosulfan I	mg/kg		U	NR	NR			U	NR		NR			U	0.007*
Endosulfan sulfate	mg/kg	0.0055	J	NR	NR			U	NR		NR		0.024	J	
Endrin aldehyde	mg/kg	0.0069	J	NR	NR			U	NR		NR			U	
gamma-BHC (Lindane)	mg/kg	0.0033	J	NR	NR		0.0063	J	NR		NR		0.011	J	0.013*
gamma-Chlordane	mg/kg	0.013	J	NR	NR		0.019	J	NR		NR		0.027	J	0.0003
Heptachlor	mg/kg	0.0028	J	NR	NR		0.0043	J	NR		NR			U	0.005**
Heptachlor epoxide	mg/kg		U	NR	NR			U	NR		NR			U	0.005**

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TABLE 3-19 VOLATILE ORGANIC COMPOUND DETECTIONS IN GROUNDWATER

	Sample Location	MW-01		MW-02		MW-03		DUPLICA	ГΕ	AWQS and
Parameter List	Sample Date	5/24/2010		5/24/2010)	5/24/2010)	5/24/2010)	Guidance Values ^(a)
(Detections Only) USEPA Method 8260	Sample Type	Groundwate	er	Groundwat	ter	Groundwat	er	Groundwat	er	Class GA H (WS)
Methyl tert-butyl ether	μg/L	4.2	J	3.4	J		U	4.4	J	

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standard.

H (WS) = Health (Water Source) $\mu g/L = Micrograms per Liter.$

μg/L = Micrograms per Lite
 J = Estimated Value.

U = Compound was analyzed for, but not detected.

EA Project No.: 14368.42 Revision: DRAFT Table 3-20, Page 1 of 1 July 2010

TABLE 3-20 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN GROUNDWATER

	Sample Location	MW-01	MW-02		MW-03		DUPLICA	ATE	AWQS and
Parameter List	Sample Date	5/24/2010	5/24/2010	0	5/24/2010)	5/24/20	10	Guidance Values ^(a)
(Detections Only) USEPA Method 8270	Sample Type	Groundwater	Groundwat	ter	Groundwat	er	Groundw	ater	Class GA H (WS)
Bis(2-ethylhexyl)phthalate					4.5	J			5

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

 $AWQS \ = Ambient \ Water \ Quality \ Standard.$

H (WS) = Health (Water Source)

J = Estimated Value.

EA Project No.: 14368.42 Revision: DRAFT Table 3-21, Page 1 of 1 July 2010

TABLE 3-21 METAL DETECTIONS IN GROUNDWATER

Parameter List	Sample Location	OLCCMW-	01	OLCCMW-	01F	OLCCMW	-02	OLCCMW-	02-F	OLCCMW-	-03	OLCCMW-()3F	OLCCDUP MW-		OLCCDUPI MW-		AWQS and Guidance
(Detections Only)	Sample Date	5/24/2010		5/26/2010)	5/24/2010	0	5/24/201	0	5/24/2010)	5/26/2010)	5/24/2	010	5/24/2	2010	Values ^(a)
USEPA Method 6010 & 7470	Sample Type	Groundwate	er	Groundwa	ter	Groundwa	ter	Groundwa	iter	Groundwat	er	Groundwat	er	Ground	water	Ground	water	Class GA H (WS)
Aluminum	μg/L	49.6	В	20.3	В	84.8	В	18.6	В	43	В	37.7	В	35.6	В	22.8	В	
Antimony	μg/L		U		U		U	6.7	В	8.6	В	6.4	В	7.8	В	5.5	В	3
Arsenic	μg/L		U		U	6.2	В		U		U		U	5.4	В	3.5	В	25
Barium	μg/L	201		193	В	120	В	117	В	346		352		208		193	В	1,000
Calcium	μg/L	137000		136000		130000		129000		445000		464000		140000		135000		
Chromium	μg/L		U		U		U		U	1.3	В	1.1	В		U		U	50
Cobalt	μg/L		U		U		U	0.7	В		U		U	0.7	В		U	
Copper	μg/L		U		U		U		U	5.3	В		U		U		U	200
Iron	μg/L	16500		16300		9370		9090		26100		26300		17000		16100		300
Magnesium	μg/L	21500		21300		19200		19000		35200		37300		22000		21200		35000 (g)
Manganese	μg/L	1180		1170		1250		1240		2310		2330		1210		1160		300
Nickel	μg/L	1.5	В	1.6	В	1.5	В	1.5	В	1.5	В	1.7	В	2.1	В	1.4	В	100
Potassium	μg/L	5550		5380		4640		4450		5400		5860		5660		5320		
Selenium	μg/L	15.4	В		U		U		U		U		U		U		U	10
Sodium	μg/L	400000		392000		194000		190000		1910000		2020000		403000		385000		20,000
Vanadium	μg/L	0.91	В	0.76	В		U		U	0.95	В	1.1	В	0.77	В	1.1	В	
Zinc	μg/L	25.5	В	20.1	В	17	В	17.1	В	16.2	В	19.3	В	24.7	В	20.9	В	2,000

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

 $AWQS \ = Ambient \ Water \ Quality \ Standard.$

H (WS) = Health (Water Source)

 $\mu g/L$ = Micrograms per liter.

В

= Less than Method Detection Limit. Bold values indicate exceedence of standard

TABLE 3-22 VOLATILE COMPOUND DETECTIONS IN SURFACE WATER (LOW-FLOW)

						VOLATI	LE OR	GANIC COMP	OUNE	OS							
	Sample Location	SW-01		SW-02		SW-03		SW-04		SW-05		SW-06		SW-07		SW-DUP-01	AWQS and Guidance
Parameter List	Sample Date	1/14/2010	0	1/14/2010)	1/14/2010	0	1/14/2010)	1/14/2010)	1/14/2010)	1/14/2010	_	1/14/2010	Values ^(a)
(Detections Only) USEPA Method 8260B	Sample Type	Surface Wa	iter	Surface Wa	ter	Surface Wa	ıter	Surface Wa	ter	Surface Wa	ter	Surface Wa	ter	Surface Wat	er	Surface Water	Class B Stream A (C)
1,2,4-Trimethylbenzene	μg/L		U		U		U		U		U		U	2.5	J	U	33
Acetone	μg/L	5.9			U	6.6			U	5.7		5.4			U	U	
Benzene	μg/L	2.4	J		U		U		U		U		U		U	U	210
Chloroethane	μg/L		U	1.8	J		U		U		U		U		U	U	
cis-1,2-Dichloroethene	μg/L		U	2.9	J		U	4.4	J	4.4	J	6.5		8.9		9.2	
m,p-Xylene	μg/L		U		U		U		U		U		U	3	J	U	65
Naphthalene	μg/L		U		U		U		U		U		U	1	J	U	13
o-Xylene	μg/L		U		U		U		U		U		U	1.2	J	U	65
Toluene	μg/L		U		U		U		U		U		U	2.4	J	1.5 J	100
Trichloroethene	μg/L		U		U		U	2.3	J	2.1	J		U		U	U	
Vinyl chloride	μg/L		U	7.4			U		U		U	1.1	J	2.6	J	2.1 J	
Xylene (Total)	μg/L		U		Ü		U		U		U		Ü	4.2	J	U	65
	•	•		•		SEMIVOLA	ATILE	ORGANIC CO	MPOU	NDS		•		•		•	•
2-Methylnaphthalene	μg/L		U	•	U	_	U		U		U	_	U	1.3	J	U	4.7

NOTE: USEPA = United States Environmental Protection Agency.

 $AWQS = Ambient\ Water\ Quality\ Standard.$

A (C) = Aquatic (Chronic)

 $\mu g/L$ = Micrograms per liter.

U = Compound was analyzed for, but not detected.

--

J = Estimated Value.

Bold values indicate exceedence of standard

TABLE 3-23 VOLATILE ORGANIC COMPOUND DETECTIONS IN SURFACE WATER (HIGH-FLOW)

	Sample Location	SW-01		SW-02		SW-03		SW-04	SW-05	SW-06	SW-07		SW-DUP-01	AWQS and Guidance
Parameter List (Detections Only)	Sample Date	1/26/2010		1/26/2010)	1/26/2010)	1/26/2010	1/26/2010	1/26/2010	1/26/2010		1/26/2010	Values ^(a) Class B Stream
USEPA Method 8260B	Sample Type	Surface Wate	er	Surface Wa	ter	Surface Wa	iter	Surface Water	Surface Water	Surface Water	Surface Wat	er	Surface Water	
cis-1,2-Dichloroethene	μg/L		U	2.6	J		U	U	U	U		U	J	
m,p-Xylene	μg/L		U		U		U	U	U	U	1.1	J	Ţ	65
Naphthalene	μg/L	4.2	J		U		U	U	U	U		U	Ţ	13
Toluene	μg/L		U		U		U	U	U	U	1.7	J	Ţ	100
Vinyl chloride	μg/L		U	3.1	J		U	U	U	U		U	Ţ	
Xylene (Total)	μg/L		U		U		U	U	U	U	1.1	J	U	65

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards

A(C) = Aquatic (Chronic)

 $\mu g/L \quad = Micrograms \ per \ Liter.$

= Compound was analyzed for, but not detected.

= Estimated Value.

TABLE 3-24 VOLATILE ORGANIC COMPOUND DETECTIONS IN SURFACE WATER MAY 2010

Parameter List	Sample Location Sample Date	SW-08 5/24/2010)	SW-09 5/24/2010)	SW-10 5/24/201		AWQS and Guidance Values ^(a)
(Detections Only) USEPA Method 8260	Sample Type	Surface Wa	ter	Surface Wa	ter	Surface Wa	ater	Class B Stream A (C)
Acetone	μg/L		U	7.9		7		
Benzene	μg/L		U	5.4			U	210 (g)
Carbon disulfide	μg/L		U	1.7	J	5.6		
Chloroethane	μg/L		U		U	3.5	J	
Isopropylbenzene	μg/L		U	1.7	J		U	2.6 (g)
Methyl tert-butyl ether	μg/L		U	3.5	J		U	
Toluene	μg/L		U		U	5.4		100 (g)

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards

A (C) = Aquatic (Chronic)

 μ g/L = Micrograms per Liter.

U = Compound was analyzed for, but not detected.

--- :

J =

TABLE 3-25 SEMIVOLATILE ORGANIC COMPOUND DETECTIONS IN SURFACE WATER MAY 2010

Parameter List (Detections Only) USEPA Method 8270	Sample Location Sample Date	SW-08 5/24/2010	SW-09 5/24/2010	SW-10 5/24/2010		AWQS and Guidance Values ^(a) Class B Stream
	Sample Type	Surface Water Surface Water		Surface Water		A (C)
Benzo(a)anthracene	μg/L	U	U	1.1	J	
Benzo(b)fluoranthene	μg/L	U	U	1.7	J	
Benzo(g,h,i)perylene	μg/L	U	U	1	J	
Bis(2-ethylhexyl)phthalate	μg/L	U	U	2.8	J	0.6
Butylbenzylphthalate	μg/L	U	U	2.7	J	
Chrysene	μg/L	U	U	2.9	J	
Fluoranthene	μg/L	U	U	3.5	J	
Phenanthrene	μg/L	U	U	1.5	J	5.0
Pyrene	μg/L	U	U	2.9	J	4.6

⁽a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards

A (C) = Aquatic (Chronic) μg/L = Micrograms per Liter.

U = Compound was analyzed for, but not detected.

J =

TABLE 3-26 METAL DETECTIONS IN SURFACE WATER (LOW-FLOW)

Parameter List (Detections Only) USEPA Method 6010 & 7470	Sample Location Sample Date Sample Type	SW-01 1/14/2010 Surface Wa		SW-02 1/14/201 Surface Wa		SW-03 1/14/2010 Surface Wa		SW-04 1/14/201 Surface W	0	SW-05 1/14/2010 Surface Wa		SW-06 1/14/2010 Surface Wa		SW-07 1/14/2010 Surface Wa		SW-DUP-0 1/14/2010 Surface Wa)	AWQS and Guidance Values ^(a) Class B Stream A (C)
Aluminum	μg/L	695		193		26.5		23.6		14.6	J	32.2		458		72.4	J	100
Arsenic	μg/L	8.3			U		U	4.5	В		U		U		U	3.1		150
Barium	μg/L	294		218			U		U		U		U		U		U	
Beryllium	μg/L		U		U		U		U		U		U		U		U	1,100
Cadmium	μg/L	0.91			U		U		U		U		U		U		U	*
Calcium	μg/L	202000		191000		224000		196000		190000		225000		220000		230000		
Chromium	μg/L	12.2		19.7			U		U		U	0.84		1.9		0.66	В	*
Cobalt	μg/L		U		U		U		U		U		U		U		U	5
Copper	μg/L	53.1		48.5			U		U		U		U	30.9			U	*
Iron	μg/L	17100		10400		510		533		514		572		1420		571		300
Lead	μg/L	9.9		6.9		2.4			U		U	3.9		26.1		4		*
Magnesium	μg/L	29100		28000		44400		33200		32400		44400		43500		45200		
Manganese	μg/L	4360		2510		166		162		158		146		166		153		
Nickel	μg/L	20.3	В	16.4		2.4	В	3.7		2.1	J	3.9		4		3.6	J	*
Potassium	μg/L	6600		5390		3930		3550		3470		3810		3910		3960		
Sodium	μg/L	216000		231000		369000		319000		314000		341000		406000		364000		
Vanadium	μg/L		U		U		U		U		U		U		U		U	14
Zinc	μg/L	101			U		U		U		U	50.2		96.8		34.5	U	*

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards A (C) = Aquatic (Chronic)

μg/L = Micrograms per Liter.

= Reported value was obtained from a reading that was less than the Contract Required Quantitation Limit, but greater than or equivalent to the Method Detection Limit.

= Reading was less than Method Detection Limit.

Bold values indicate exceedance of standard.

= Class A drinking water standards; see below for hardness-based standards

- Catass II di iii	king water standards, see	o delo w for intrumes	o bused standards									
				I	Iardn	ess-based stand	ards					
Cadmium	μg/L	9	8	10		9		9	10	10	10	
Chromium	μg/L	332	318	383		333		325	384	377	390	
Copper	μg/L	43	41	50		43		42	50	49	51	
Lead	μg/L	26	24	31		26		25	31	30	31	
Nickel	μg/L	245	234	283		245		239	284	279	289	
Zinc	μg/L	392	375	454		393		383	455	447	463	

TABLE 3-27 METAL DETECTIONS IN SURFACE WATER (HIGH-FLOW)

Parameter List (Detections Only) USEPA Method 6010 &	Sample Location Sample Date	SW-01 1/26/2010)	SW-02 1/26/2010)	SW-03 1/26/201		SW-04 1/26/201	0	SW-05 1/26/2010)	SW-06 1/26/2010)	SW-07 1/26/2010)	SW-DUP-0		AWQS and Guidance Values ^(a) Class B Stream
7470	Sample Type	Surface Wat	ter	Surface Wa	ter	Surface W	ater	Surface Wa	iter	Surface Wa	iter	Surface Wa	ter	Surface Wa	ter	Surface Wa	ter	A (C)
Aluminum	μg/L	242			U		U	442		472		203			U	473		100
Antimony	μg/L		U	4.8			U		U		U		U		U		U	
Arsenic	μg/L		U		U		U		U		U		U	3.6			U	150
Barium	μg/L	84.3		107		94.8		59.2		58.6		92.9		95		58		
Calcium	μg/L	135000		139000		168000		71800		68800		169000		170000		68700		
Chromium	μg/L	8		10.7		1.6		1.4		1.6		2.9		3.1		1.5		*
Cobalt	μg/L	1		1.1			U		U		U		U	0.81		0.76		5
Copper	μg/L		U		U		U		U		U		U		U	7.8		*
Iron	μg/L	2670		2610		608		1200		1260		837		856		1260		300
Lead	μg/L		U		U	3.1	В		U		U	6.9		9.3			U	*
Magnesium	μg/L	16100	J	19900	J	32200	J	14200	J	13800	J	32900	J	33000	J	13800	J	
Manganese	μg/L	319		1030		214		204		223		236		213		196		
Nickel	μg/L	47.2		28.2		6		2.4		2.4		5.9		6		2.1		*
Potassium	μg/L	3230		3510		3980		3210		3110		3930		3980		3110		
Sodium	μg/L	331000		228000		401000		172000		166000		348000		355000		162000		
Vanadium	μg/L		U		U		U		U		U		U	1.4	U		U	14
Zinc	μg/L	133		54.5			U		U		U	60.8		53.5			U	*

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards

A (C) = Aquatic (Chronic) μg/L = Micrograms per Liter.

U

= Reading was less than Method Detection Limit.

В

= Reported value was obtained from a reading that was less than the Contract Required Quantitation Limit, but greater than or equivalent to the Method Detection Limit.

Bold values indicate exceedance of standard.

= Class A drinking water standards; see below for hardness-based standards

					Hardn	ess-based stand	ards					
Chromium	μg/L	232	244	300		151		146	303	304	146	
Copper	μg/L	29	31	39		19		18	39	39	18	
Lead	μg/L	17	18	23		10		9	23	23	9	
Nickel	μg/L	169	178	221		108		105	222	223	105	
Zinc	μg/L	270	285	353		173		167	356	358	167	

TABLE 3-28 METAL DETECTIONS IN SURFACE WATER MAY 2010

Parameter List (Detections Only) USEPA Method 6010 & 7470	Sample Location Sample Date Sample Type	SW-08 5/24/2010 Surface Wa		SW-09 5/24/2010 Surface Wa		SW-10 5/24/201 Surface W	0	AWQS and Guidance Values ^(a) Class B Stream A (C)
Aluminum	μg/L	39.8	В	21200		5790		100
Arsenic	μg/L	57.0	U	107		14.8	В	150
Barium	μg/L	339		1990		345		
Beryllium	μg/L		U	1.8	В	0.31	В	1100
Cadmium	μg/L		U	6.6		7.7		*
Calcium	μg/L	285000		363000		305000		
Chromium	μg/L	0.56	В	2330		538		*
Cobalt	μg/L	0.95	В	11.7	В	11.1	В	5
Copper	μg/L		U	1320		461		*
Iron	μg/L	12000		191000		39600		300
Lead	μg/L		U	758		154		*
Magnesium	μg/L	39900		52200		42200		
Manganese	μg/L	2310		4160		2630		
Mercury	μg/L		U	1.6			U	0.77
Nickel	μg/L	1.4	В	622		268		*
Potassium	μg/L	4830		7130		7310		
Silver	μg/L		U	2.6	В	14.4	В	0.1
Sodium	μg/L	879000		161000		286000		
Vanadium	μg/L		U	87.8		23.2	В	14
Zinc	μg/L	25	В	1840		747		*

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency.

AWQS = Ambient Water Quality Standards

A(C) = Aquatic (Chronic)

 $\mu g/L$ = Micrograms per Liter.

U = Reading was less than Method Detection Limit.

--- =

В

J = Reported value was obtained from a reading that was less than the Contract Required Quantitation Limit, but greater than or equivalent to the Method Detection Limit.

Bold values indicate exceedance of standard.

* = Class A drinking water standards; see below for hardness-based standards

* = Class A dri	inking water standards; s	see below for har	dness	-based standards		
		Hardness	-base	d standards		
Cadmium	μg/L	21		25	22	
Chromium	μg/L	438		537	463	
Copper	μg/L	57		71	61	
Lead	μg/L	36		46	38	
Nickel	μg/L	326		402	345	
Zinc	μg/L	523		645	553	

TABLE 3-29 POLYCHLORINATED BIPHENYL DETECTIONS IN SURFACE WATER (HIGH-FLOW)

	Sample Location	SW-01	SW-02	SW-03	SW-04	SW-05	SW-06	SW-07	SW-DUP-01	AWQS and Guidance
Parameter List	Sample Date	1/26/2010	1/26/2010	1/26/2010	1/26/2010	1/26/2010	1/26/2010	1/26/2010	1/26/2010	Values ^(a)
(Detections Only) USEPA Method 8082	Sample Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Class B Stream H (FC)
Aroclor-1248	μg/L	3.1	3.1	U	U	1.1	U	1.8	U	1.00E-06

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency

 $AWQS = Ambient\ Water\ Quality\ Standard.$ H (FC) = Human (Fish Consumption)

 $\mu g/L \quad = Micrograms \ per \ Liter.$

U = Compound was analyzed for, but not detected. **Bold** values indicate exceedence of standard.

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TABLE 3-30 POLYCHLORINATED BIPHENYL DETECTIONS IN SURFACE WATER MAY 2010

	Sample Location	SW-08		SW-09		SW-10		AWQS and Guidance
Parameter List	Sample Date	5/24/2010)	5/24/2010)	5/24/201	0	Values ^(a) Class B Stream
(Detections Only) USEPA Method 8082	Sample Type	Surface Wa	ter	Surface Wa	ter	Surface Wa	ater	A (C)
Aroclor-1248	μg/L		U	110		6.1		
Aroclor-1254	μg/L		U	36		2.5		
Total				146		8.6		1.00E-06

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency

AWQS = Ambient Water Quality Standard.

A(C) = Aquatic (Chronic) $\mu g/L = Micrograms per Liter.$

U = Compound was analyzed for, but not detected.

--- =

Bold values indicate exceedence of standard.

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TABLE 3-31 PESTICIDE DETECTIONS IN SURFACE WATER MAY 2010

Parameter List	Sample Location Sample Date	SW-08 5/24/2010		SW-09 5/24/2010)	SW-10 5/24/201		AWQS and Guidance Values ^(a)
(Detections Only) USEPA Method 8081	Sample Type	Surface Wat	ter	Surface Wa	ter	Surface Wa	ater	Class B Stream H (FC)
4,4'-DDD	μg/L		U	0.1			U	0.00008
4,4'-DDE	μg/L		U	0.16			U	0.000007
4,4'-DDT	μg/L		U	0.15			U	0.00001
Aldrin	μg/L		U		U	0.23		0.001
delta-BHC	μg/L		U	0.66		0.5		
Endosulfan sulfate	μg/L		U		U	0.14		
gamma-BHC (Lindane)	μg/L		U		U	0.055		
gamma-Chlordane	μg/L		U		U	0.43		
Heptachlor	μg/L		U	0.075		0.075		0.0002
Heptachlor epoxide	μg/L		U	0.52			U	0.0003

(a) Division of Water Technical and Operational Guidance Series (1.1.1), June 1998

NOTE: USEPA = United States Environmental Protection Agency

AWQS = Ambient Water Quality Standard.

H (FC) = Human (Fish Consumption) μg/L = Micrograms per Liter.

4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

U = Compound was analyzed for, but not detected.

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene

4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

Bold values indicate exceedence of standard.

Old Ley Creek Channel Site (7-34-074)
Town of Salina, New York

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TABLE 4-1 ENVIRONMENTAL FATE AND TRANSPORT PARAMETERS FOR CHEMICALS OF $\mathsf{CONCERN}^{(a)}$

			Henry's Law		
		Vapor Pressure	Constant	Kow	Koc
Analyte	Water Solubility (mg/L)	(mm Hg)	(atm-m ³ /mol)	(L/kg)	(L/kg)
Delegation of different	FOLY 5.55E-02	7.60E-05	1.75E-02	2.00E+06	5.30E+05
Polychlorinated Biphenyls	3.33E-02	PESTICIDES	1.73E-02	2.00E+00	3.30E+03
gamma- Chlordane ^(b)	2.28E-01	4.17E-06	4.11E-03	9.25E+06	3.93E+05
4,4-DDD ^(b)	9.00E-02	8.66E-07	1.70E-04	7.47E+05	8.51E+04
4,4-DDE ^(b)	6.50E-02	5.66E-06	8.73E-04	9.90E+05	1.10E+04
4,4-DDT ^(b)	3.10E-03	3.93E-07	2.20E-03	6.23E+06	1.37E+05
Delta BHC ^(b)	2.59E+00	2.87E-05	1.80E-04	1.00E+04	8.51E+03
Dieldrin ^(b)	1.95E-01	9.96E-07	1.10E-04	2.80E+05	2.14E+04
Endosulfan Sulfate ^(b)	1.00E-01	1.62E-07	3.65E-05	1.02E+06	7.94E+05
Endosulfan I ^(b)	1.73E+00	2.75E-06	3.55E-05	1.58E+05	1.57E+04
Gamma BHC ^(b)	5.75E+00	3.72E-05	1.40E-04	1.81E+04	1.10E+03
Heptachlor ^(b)	1.80E-01	3.26E-04	2.44E-02	1.61E+06	1.17E+04
Heptachlor Epoxide ^(b)	2.75E-01	4.34E-06	3.40E-04	8.04E+04	7.25E+03
	SEMIVO	LATILE ORGANIC	CHEMICALS		
Benzo(a)anthracene(b)	1.00E-02	1.54E-07	1.40E-04	3.32E+05	3.55E+05
Benzo(a)pyrene ^(b)	1.62E-03	4.89E-09	4.70E-05	1.29E+06	9.55E+05
Benzo(b)fluoranthene(b)	1.50E-03	8.06E-08	5.00E-04	1.26E+06	1.20E+06
Benzo(k)fluoranthene(b)	5.50E-04	9.59E-11	4.45E-07	1.29E+06	1.23E+06
Chrysene ^(b)	2.00E-03	7.80E-09	5.03E-05	3.32E+05	3.09E+05
Dibenz(a,h)anthracene(b)	5.00E-04	2.11E-11	4.66E-07	4.98E+06	1.91E+06
Fluorene ^(b)	1.98E+00	3.20E-03	2.60E-03	1.04E+04	7.59E+03
Phenanthrene ^(b)	9.94E-01	6.80E-04	5.40E-03	2.21E+04	1.41E+04
Indeno(1,2,3-cd)pyrene ^(b)	3.80E-03	1.40E-10	2.85E-06	4.98E+06	3.47E+06
4)	NON-	CHLORINATED AL	KENE	T	T
Acetone ^(b)	6.00E+05	2.27E+02	1.60E-03	5.82E-01	5.70E-01
Antimony ^(b)	0.005.00	METALS	0.005 - 00	0.005.00	4.50E+01
Arsenic ^(b)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	
Cadmium ^(b)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	4.78E+00 8.49E-01	2.51E+01 1.51E+01
Copper ^(b)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	2.69E-01	3.98E+01
Iron ^(b)	0.00E+00	0.00E+00	0.00E+00	NA	NA
Lead ^(b)	0.00E+00	0.00E+00	0.00E+00	5.36E+00	1.00E+01
Magnesium ^(b)	0.00E+00	0.00E+00	0.00E+00	NA NA	NA
Manganese ^(b)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.01E+01
Mercury ^(b)	3.00E-02	1.30E-03	4.74E-01	3.38E-01	4.00E-02
Nickel ^(b)	0.00E+00	0.00E+00	0.00E+00	2.69E-01	1.58E+01
Silver ^(b)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-01
Sodium ^(b)	NA	0.00E+00	0.00E+00	NA`	NA
Zinc ^(b)	0.00E+00	0.00E+00	0.00E+00	3.38E-01	1.58E+01
	0.00E±00	0.00E+00	0.00LT00	J.J6E=01	1.50E±01

(a) Adapted from: USEPA. 1996. Soil Screening Guidance: Technical Background Document, Office of Emergency and Remedial Response, Washington, D.C., EPA/540/R95/128

(b) GSI Environmental, 2009. GSI Chemical Properties Database.

NOTE: 4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene 4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane

TABLE 5-1 HUMAN HEALTH CONTAMINANTS OF CONCERN

	Contaminants of Concern	n	
Medium	Pesticides/Polychlorinated Biphenyls	Semivolatile Organic Chemicals	Metals
Surface Soil, Subsurface Soil, and Sediment	gamma-Chlordane, 4,4-	Benzo(a)anthracene,	Antimony, Arsenic,
(Onsite)	Dichlorodiphenyldichloroethane, 4,4-	Benzo(a)pyrene,	Cadmium, Copper, Iron,
	Dichlorodiphenyldichloroethylene, 4,4-	Benzo(b)fluoranthene,	Lead, Magnesium,
	Dichlorodiphenyltrichloroethane,	Benzo(k)fluoranthene, Chrysene,	Manganese, Mercury, Nickel,
	Delta BHC, Dieldrin, Endosulfan	Dibenz(a,h)anthracene, Fluorene,	Silver, Sodium, Zinc
	Sulfate, Endosulfan I, Gamma BHC,	Phenanthrene, Indeno(1,2,3-	
	Heptachlor, Heptachlor Epoxide,	cd)pyrene	
	Polychlorinated Biphenyls		
Surface Water	Aldrin, Delta-bhc, Endosulfan Sulfate,	Phenol, 4-methylphenol,	Aluminum, Cadmium,
	gamma-Chlordane, Heptachlor,	Phenanthrene, Fluoranthene,	Chromium, Cobalt, Copper,
	Heptachlor Epoxide, 4,4-	Pyrene, Benzo(a)anthracene,	Iron, Lead, Nickel,
	Dichlorodiphenyldichloroethane, 4,4-	Chrysene, Benzo(b)fluoranthene,	Vanadium
	Dichlorodiphenyldichloroethylene, 4,4-	* *	
	Dichlorodiphenyltrichloroethane	Benzo(g,h,i)perylene	
Groundwater			Antimony, Iron, Magnesium,
			Manganese, Selenium, and
			Sodium

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TABLE 5-2 EXPOSURE MATRIX

	Media	Soil/Sedi	nd Subsurface ment/Surface froundwater	Soil Particulate	Ambient Air
Carnaria	Potential Exposure	Ingestion	Dermal Contact	Inhalation	Inhalation
Scenario	Receptor	Minimal	Minimal	None	None
	Trespassers - C Adult Commercial Workers - F	Minimal	Minimal	None	None
Onsite	Adult and Child Visitors - F	Minimal	Minimal	None	None
	Adult and Child Residents F	Minimal	Minimal	Minimal	None
	Adult Construction Workers - F	Minimal	Minimal	Minimal	None
	Adult Commercial and Industrial Workers - C, F	Minimal	Minimal	Minimal	None
Offsite	Adult and Child Visitors - C, F	Minimal	Minimal	Minimal	None
	Adult Construction Workers - C, F	Minimal	Minimal	Minimal	None
	Adult Nearby Utility Workers - C, F	Minimal	Minimal	Minimal	None

TABLE 6-1 FISH AND WILDLIFE RESOURCES IMPACT ANALYSIS DECISION KEY

	Yes	No
1) Is the site or area of concern a discharge or spill event?		X
2) Is the site or area of concern a point source of contamination to the groundwater which will		
be prevented from discharging to surface water? Soil contamination is not widespread, or if		X
widespread, is confined under buildings and paved areas?		
3) Is the site and all adjacent property a developed area with buildings, paved surfaces and little		•
or no vegetation?		X
4) Does the site contain habitat of an endangered, threatened, or special concern species?		X
5) Has the contamination gone off-site?	X	
6) Is there any discharge or erosion of contamination or the potential for discharge or erosion of	•	
contamination?	X	
7)	•	
Are the site contaminants PCBs, pesticides, or other persistent, bioaccumulable substances?	X	
8) Does contamination exist at concentrations that could exceed SCGs or be toxic to aquatic	•	
life if discharged to surface water?	X	
9) Does the site or any adjacent or downgradient property contain any of the following		
resources?		
a. Any endangered, threatenend, or special concern species or rare plants or		***
their habitats		X
b. Any NYSDEC designated significant habitats or rare NYS ecological		
communities		X
c. Tidal or freshwater wetlands	X	
d. Streams, creeks, or river	X	
e. Pond, lake, or lagoon		X
f. Drainage ditch or channel	X	
g. Other surface water features		X
h. Other marine or freshwater habitats	X	
i. Forest		X
j. Grassland or grassy field		X
k. Parkland or woodland	X	
1. Shrubby area	X	
m. Urban wildlife habitat	X	
n. Other terrestrial habitat	X	
10) Is the lack of resources due to contamination?		X
11) Is the contamination a localized source which has not migrated from the source to impact		T 7
any on-site or off-site resources?		X
12) Does the site have widespread soil contamination that is not confined under and around	v	
buildings or paved areas?	X	
13) Does the contamination at the site or area of concern have the potential to migrate to, erode		
into or otherwise impact any on-site or off-site habitat of endangered, threatened, or special	X	
concern species or other fish and wildlife resources?		
14) Fish and wildlife resources impact analysis needed?	X	

TABLE 7-1 SUMMARY OF DEGREE OF IMPACT FROM CONTAMINANTS OF CONCERN AT OLD LEY CREEK CHANNEL

Sediment	Contaminants of Concern	Concentration Range Detected (ppm) ^(a)	SCG ^(b) (ppm) ^(a)	Frequency of Exceeding SCG
VOCs	Vinyl Chloride	3.8-4.7	0.06	3/14
SVOCs	Benzo(a)anthracene	0.16-15	2.5	9/14
	Benzo(a)pyrene	0.18-12	0.27	13/14
	Fluorene	0.049-3.5	1.7	2/14
	Phenanthrene	0.17-26	25	1/14
	Phenol	0-0.12	0.1	1/14
Pesticides	4,4'-DDD	0.0055-0.16	0.002	6/14
	4,4'-DDE	0.0045-0.28	0.002	7/14
	4,4'-DDT	0.069-0.41	0.002	13/14
	delta-BHC	0.01-0.031	0.013	1/14
	Endosulfan I	0.0-0.013	0.007	1/14
	gamma-BHC (Lindane)	0.0031-0.33	0.013	6/14
	gamma-Chlordane	0.013-0.44	0.005	12/14
	Heptachlor	0.028-0.66	0.02	10/14
PCBs	Total Aroclor	1.97-64.3	4	10/14
Metals	Arsenic	2.6-12.7	6.0-33.0	7/14
	Cadmium	0.31-7.7	0.6-9.0	9/14
	Chromium	21.7-912	26-110	13/14
	Copper	49.6-850	16-110	14/14
	Iron	7740-39200	2%-4%	6/14
	Lead	13.7-489	31-110	11/14
	Manganese	147-552	460-1100	2/14
	Mercury	0.01-0.56	0.15-1.3	5/14
	Nickel	9.7-312	16-50	11/14
	Silver	0.24-10.3	1-2.2	4/14
	Zinc	34.8-2690	120-270	9/14

(a) ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil

(b) Technical Guidance for Screening Contaminated Sediments

NOTE: ppm = Parts per million

SCG = Standards, Criteria, and Guidance.

VOC = Volatile Organic Compound

SVOC = Semivolatile Organic Compound

4,4'-DDD = 4,4'-Dichlorodiphenyldichloroethane

4,4'-DDE = 4,4'-Dichlorodiphenyldichloroethylene

4,4'-DDT = 4,4'-Dichlorodiphenyltrichloroethane





























